CENTER ON POVERTY and INEQUALITY
GEORGETOWN LAW

ECONOMIC SECURITY and
OPPORTUNITY INITIATIVE

Building the Caring Economy

Workforce Investments to Expand Access to Affordable, High-Quality Early and Long-Term Care

NINA DASTUR, INDIVAR DUTTA-GUPTA,
LAURA TATUM, PETER EDELMAN,
KALI GRANT, AND CASEY GOLDVALE

SPRING 2017

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Executive Summary

Across the country, Americans are struggling to secure jobs that offer the prospect of long-term financial security and the promise of a real future for themselves and their families. Recognizing the problem, President Trump promised in his campaign and continues to promise to bring back good-paying jobs, and the issue likely was an important factor in his victory. Of course, recognizing the problem is quite different from addressing it constructively.

For many families, the struggle to get by is compounded by the demands and expense of providing care for young children, older family members, and/or family members with disabilities. Caregiving—with its attendant love and joy and often sacrifice—enhances our lives, but too often families in the United States find themselves on their own as they seek to meet these caregiving needs while balancing work and other obligations.

This report proposes caregiving jobs investments to address two national needs: the pressing need for caregiving; and the equally pressing need for good jobs. With these aims, we offer proposals that promote the well-being of children, older adults, people with disabilities, and their families by creating and sustaining good jobs in the caregiving sector.

We begin by reviewing the current state of caregiving, examining the needs, benefits and costs associated with the responsibilities of providing care. We focus primarily on the need for (1) early care and education for young children and (2) long-term services and supports for older adults, including older adults with disabilities. Issues specific to caregiving for children with disabilities and non-elderly adults with disabilities warrant full attention, but are beyond the scope of our review.

This report sets out the opportunities to expand the quantity and improve the quality of caregiving employment to create good jobs that meet families' caregiving needs. In particular, it highlights common challenges facing families as they provide necessary care, and the ways in which current policies fail to provide access to formal, high-quality care. It concludes with a set

of recommendations for increased public investment designed to expand access to quality care by financing good jobs in the caregiving sector, including for disadvantaged workers.

Current discussions about federally supported job creation based on national needs focus almost exclusively on infrastructure in the form of highways, bridges, and other physical structures. This attention is important, but too narrow in scope. Investment in national infrastructure needs should include education, housing, green energy, and caregiving. All address unmet national needs and put Americans to work. This is particularly the case for caregiving, for three key reasons:

1. Investment in social care provision such as early childhood development and home health care can generate twice as many jobs per dollar as infrastructure construction due to the high labor intensity of the care sector, among other factors.[1]

2. Investments in the caregiving sector are uniquely effective at increasing employment because they both directly create jobs and enable family members with caregiving responsibilities to seek and maintain employment.

3. An infrastructure investment that includes high-quality caregiving jobs would more comprehensively strengthen families and communities. An infrastructure plan encompassing the caregiving jobs recommendations outlined in this report will provide jobs that reach people outside the construction and related sectors. Currently, caregiving jobs are disproportionately filled by women[2] while construction jobs are disproportionately filled by men.[3] That said, the very investments recommended by this report would increase the gender diversity of the caregiving workforce.

Well-designed physical infrastructure investments are long overdue, but the Trump Administration's physical infrastructure proposals are not well designed. They provide additional tax handouts to investors in projects that likely would have existed without the subsidies, wasting taxpayers' resources while limiting the job creation potential.[4]

Well-designed investments in caregiving are also desperately needed. They should be evaluated based on the extent to which they expand access to care for those who have the greatest need, improve care quality, and create new good jobs. President Trump's care proposals fall short on all counts. His proposals center on expanding tax subsidies for child and elderly dependent care expenses that would offer very little help to working families who are paid the least.[5] Further exacerbating this inequality, his plans to cut non-defense discretionary spending by $54 billion on top of already scheduled cuts will reduce essential funding for existing child care assistance programs that help low- and moderate-income families.[6] In addition, these proposals would do little if anything to improve the quality of care. And the White House proposals appear to offer no direct strategy for strengthening the caregiving workforce.

On top of these ill-advised infrastructure and care proposals, the White House and House Republicans have embraced health care proposals that would exact dangerous cuts in Medicaid, a major source of funding for long-term services and supports (LTSS). The House Republican bill to repeal and replace the Affordable Care Act, passed in April 2017, would severely reduce and cap federal funding to states for Medicaid, and the President's recently released budget would cut Medicaid spending by 17%.[7]

The recommendations in this report offer policymakers a far better way forward. Our proposal would develop and finance an infrastructure that promotes access to high-quality care while reducing families' caregiving costs. Our proposal invests in and expands the caregiving sector to meet our nation's needs through the creation of new good jobs. This report includes estimated costs and fiscal and economic impacts for the early childhood education (ECE) recommendations; given the complex actuarial analysis involved in long-term care and the diversity in state Medicaid programs, it was beyond the scope of this project to develop estimated impacts for the LTSS recommendations. Based on a model developed in partnership with the global financial services firm Stout, we estimate that the total cost of the major ECE recommendations would be approximately $76 billion annually; these investments would directly create 1.3 million jobs just by serving low income children and improve the quality of around 700,000 existing jobs in the ECE sector. We demonstrate that the costs would likely be significantly offset by the fiscal impact of the investment, estimating that these major ECE investments could generate at least $78 billion in short-term recurring economic activity.

Key Findings

THE STATE OF THE CURRENT LABOR MARKET DEMONSTRATES THE ONGOING NEED FOR AMBITIOUS JOB CREATION STRATEGIES.

While the U.S. economy has officially recovered from its recent depths during the Great Recession, almost 3 in 4 Americans still rate the economy as only fair or poor, with two-thirds (66 percent) saying that there are not enough good jobs available and almost half feeling that their incomes are falling behind the cost of living.[8]

Finding a job is still a challenge for both younger and prime age workers, especially those with limited education, for women, and workers of color. These populations fill many jobs in the early care and education and long-term care fields. Creating more of these jobs could provide significant opportunities to employ these workers.

HIGH-QUALITY CAREGIVING ACROSS THE LIFE SPAN BENEFITS YOUNG CHILDREN, PEOPLE WITH DISABILITIES AND OLDER ADULTS, AS WELL AS THEIR FAMILIES AND OUR ECONOMY.

Safe and reliable child care is essential to supporting the employment and economic self-sufficiency of parents of young children. More than half of all parents of young children identify child care as an economic necessity, with three-quarters of parents designating it as the most or one of the most important ways to help working families.[9] At the same time, young children's exposure to high-quality care both improves their school readiness and performance, and lays the groundwork for long-term economic, social and health benefits, especially for children from low-income families. Participants in model early care and education programs have demonstrated positive and persistent outcomes on a range of measures—from high school completion to improved employment and earnings, as well as lower incidences of criminality and diet-related disease—generating high economic returns on the initial programmatic investments.[10]

For aging adults and people with disabilities, LTSS provide critical assistance with personal health and social needs that helps them maintain their daily lives and prevents deterioration that might lead to the need for more intensive—and expensive—care. Estimates suggest that over 12 million Americans currently need long-term assistance with daily living.[11] Approximately half of those currently in need are ages 65 years or older, while another 47 percent are adults between the ages of 18 to 64, and 3 percent are children under the age of 18.[12]

As the U.S. population ages, the need for long-term supports and services and the challenges of providing them both formally and informally are expected to grow significantly. By 2030, more than one-fourth of all adults will be 65 or older, with this group growing to include more than 83.7 million older adults by 2050.[13] According to estimates, approximately 70 percent of those ages 65 and older will use long-term services and supports, with those 85 and older more than four times more likely than those ages 65-84 to need long-term care.[14] For these individuals, high-quality long-term support for essential "activities of daily living" will help them continue to live at home, preserving their independence and avoiding expensive institutionalization.

DESPITE ITS RECOGNIZED BENEFITS, THE EXPENSE OF HIGH-QUALITY FORMAL CARE CURRENTLY PUTS IT OUT OF REACH OF TOO MANY FAMILIES.

With limited earnings and minimal additional financial resources, too few families can afford high-quality care for their loved ones. Today, all adults in nearly 60 percent of American families with children under the age of 6 (including both single parent and married couple households) are employed.[15] While the cost of care varies across settings and based on a child's age, most families cannot afford the kinds of stable, high-quality care that both supports parental employment and benefits their children academically and socially.

The U.S. Department of Health and Human Services considers care to be affordable when parent fees amount to no more than 7 percent of a family's income.[16] However, statistics show the cost of high-quality formal care far outpaces that standard. The median annual cost of care for one child across early care settings approaches or exceeds more than twice that threshold for families with incomes at 200 percent of the federal poverty level, and rises to approximately 40 percent for families with income at 100 percent of federal poverty level. As a result, of the 12.5 million children ages 0-5 in a regular care arrangement each week, fewer than one-fourth are in center-based care, either a day care center (13.4 percent), nursery or preschool (6 percent) or Head Start or school arrangement like kindergarten (5.6 percent).[17] Another 7.8 percent of young children receive care in a provider's home, including 4.6 percent in family day care.[18] Not surprisingly given the cost burdens, two-thirds of all low-income children receive care in early care and education settings that do not meet the quality standards shown to produce developmental gains.[19]

As costly as early care and education is for families, its expense pales in comparison with the cost of long-term services and supports: in 2015, the national median annual cost for 44 hours of weekly care by a home health aide was just under $45,800, significantly exceeding the median annual income of older adults.[20] Yet more than half of adults over 40 (54 percent) have done little or no planning toward their own long-term care needs[21] and nearly three-fourths of middle-income Baby Boomers have no plan for their retirement care.[22] One in four caregivers reports finding it "very difficult" in their community to get affordable services to help provide care, with 56 percent of friend and family caregivers identifying affordable formal care as either moderately or very difficult to secure.[23] Accordingly, among older adults living in the community who need long-term assistance, only 3 in 10 supplement the informal care they receive with paid help.[24]

AS A RESULT, MOST CARE IS PROVIDED BY UNPAID CAREGIVERS, TYPICALLY FAMILY MEMBERS OR FRIENDS, WITH SIGNIFICANT IMPACTS ON CAREGIVERS' WELL-BEING.

Both families with young children and those needing LTSS for family members start out searching for the highest-quality, affordable care, but typically end up in the same place: with

care largely provided informally by family members or friends. Around 4 in 10 children (42 percent) under the age of 5 are cared for by a relative, including more than three-fourths of those with working mothers; their caregivers are predominantly grandparents.[25] Reliance on informal support is even higher among those who need long-term services. Sixty-eight percent of adults who receive LTSS in the community receive support solely from an unpaid friend or family member.[26] While estimates of adult caregivers and the hours they spend on care vary widely, a meta-analysis suggests that in 2013, an estimated 39.8 million Americans had provided care to an adult within the last 12 months, with the prevalence of family caregiving crossing age, gender, racial and socioeconomic lines.[27]

Estimates suggest that the value of wages that parents forego to care for their young children is about **$96 BILLION ANNUALLY.**

For these caregivers, their responsibilities affect their ability to work, their finances, and even their physical health. Many parents confronting the challenge of finding affordable quality care—particularly mothers—find that the answer is to curtail or give up working entirely. Estimates suggest that the value of wages that parents forego to care for their young children is about $96 billion annually.[28]

Similarly, 6 in 10 family caregivers providing long-term support reported that their caregiving responsibilities had negatively impacted their employment.[29] On average, family members over the age of 50 who leave the workforce or cut back on their hours to engage in caregiving lose an estimated $303,880 in income and benefits over their lifetime.[30] These wage losses are accompanied by more direct costs: almost 1 in 3 workers (29 percent) reports providing financial support to a relative or friend related to their care needs.[31] As a result, providing LTSS is often highly stressful[32] and overwhelming to some caregivers,[33] and can take a toll on their own health.[34]

The average working parent in America misses five to nine days of work each year attributable to child care problems alone, at a productivity cost to U.S. businesses of **$3 BILLION ANNUALLY.**

THE CUMULATIVE COSTS OF INFORMAL CAREGIVING ALSO EXACT COSTS ON EMPLOYERS AND THE BROADER ECONOMY.

The financial impact of informal caregiving extends beyond families to the broader economy. The average working parent in America misses five to nine days of work each year attributable to child care problems alone, at a productivity cost to U.S. businesses of $3 billion annually.[35] More broadly, the cost to U.S. employers attributable to full-time employees who had family caregiving responsibilities has been estimated at $17.1 to $33.6 billion (2006 dollars) in lost productivity, due primarily to absenteeism ($5.1 billion), shifts from full-time to part-time work ($4.8 billion), replacing employees ($6.6 billion), and workday interruptions ($6.3 billion).[36]

Employed caregivers are also more likely to report missed days of work due to their own poor health, on top of their caregiving duties. Additionally, U.S. employers spend an estimated $13.4 billion on healthcare for employees associated with their caregiving of older relatives.[37]

DESPITE THE LIKELY SOCIETAL BENEFITS THAT WOULD RESULT FROM IMPROVING ACCESS TO HIGH-QUALITY CARE, CURRENT PUBLIC FINANCING FOR FORMAL PAID CAREGIVING IS INADEQUATE TO MEET FAMILIES' CAREGIVING NEEDS AND IS NOT STRUCTURED TO PROMOTE HIGH-QUALITY CARE.

Recognizing the cost burdens associated with formal care and the benefits of early care investments, some states and localities are increasing spending on early care and education, largely through expansion of pre-kindergarten. Most recently, for example, voters have approved

referenda adopting progressive taxation to support caregiving initiatives. However, the nation's need cannot be met without significant federal investments. The federal programs that provide vital assistance for early care and education and long-term services currently serve only a fraction of the families who are eligible, and leave families with somewhat higher but modest income levels without any public support.

At best, the public funding streams that finance caregiving provide a patchwork of support that varies considerably from state to state, both in the availability of assistance and the extent of its value to families in meeting the costs of care. This lack of uniformity renders it difficult for families to understand and evaluate their caregiving options, and to arrange for high-quality care.

The bulk of public funding for child care assistance is provided through the federal Child Care Development Fund (CCDF) authorized under the Child Care and Development Block Grant,[38]and its related programs.[39] However, only 23 percent of all federally eligible children up to age 5 (1,200,830 young children) received that subsidized care in fiscal year 2012, including less than half of eligible children up to age 4 who were living in poverty.[40] Fifteen percent of all children under 18 eligible for child care subsidies under federal rules received subsidies through the Child Care and Development Fund or related government funding streams in an average month. Even for those lucky enough to receive assistance, the limited value of early care subsidies constrains parents' care options.

Similarly, our nation's approach to financing LTSS for those who cannot afford necessary care falls substantially short of meeting the needs of families, and even the limited assistance offered is in serious jeopardy in Congress. Medicaid is a crucial funder of LTSS, supporting approximately two-thirds of the cost of formal services.[41] Under Medicaid, states are required to pay for nursing home and other institutional care for people of all ages who meet income and asset qualifications for coverage, but home and community-based services[42] are largely considered to be optional. The federal government has used a variety of incentives to encourage states to provide these services to Medicaid recipients and to "balance" their spending across settings. In 2012, expenditures under the three main Medicaid home and community-based programs—Section 1915(c) waivers, home health state plan services, and personal care state services—provided LTSS to more than 3.2 million people.[43]

While Medicaid functions as a safety net for those with long-term care needs, the support it provides for home and community-based services varies significantly from state to state, partly because it is financed through federal cost matching of state spending. Even the best-financed states fail to meet all low-income older adults' needs. Waiting lists maintained under states' home and community-based programs established pursuant to Section 1915(c) waiver authority (which makes up the majority of spending for these services) provide one indication of the need for affordable LTSS among just the lowest income Americans; more than half a million individuals were on Section 1915(c) waiting lists across 39 states in 2014, and the national average duration of their waiting period for assistance was 29 months.[44]

CONGRESS IS ADVANCING A HEALTH CARE PROPOSAL THAT WOULD SEVERELY REDUCE FEDERAL FUNDING TO STATES FOR MEDICAID

A House Republican bill to repeal and replace the Affordable Care Act, passed in April 2017, would severely reduce and cap federal funding to states for Medicaid.45 While that measure will be modified in the Senate, conservative Republicans remain focused on cutting Medicaid spending. Such efforts would significantly debilitate state efforts to address families' needs for

long-term care and reverse decades of progress in promoting access to home and community-based long-term services and supports, at a time when demographic changes are driving growing demand. Retrenchment in federal commitments to Medicaid would not only increase the financial, physical, and emotional costs to family caregivers, but also likely would lead to expanded use of institutionalized care, which is more costly and highly undesirable to many seniors and people with disabilities.

INSUFFICIENT PRIVATE AND PUBLIC RESOURCES AFFECT THE PAID CAREGIVING WORKFORCE, WHICH RECEIVES LOW COMPENSATION THAT HURTS CARE QUALITY.

Most families are limited in their ability to pay for formal early or long-term care, and this necessarily restricts wages for formal caregivers, especially those in exclusively privately-paid services. Even when care is subsidized, however, the under-financing of public programs has pitted funding of provider salaries and benefits against the number of individuals receiving support. What has resulted are generally low—even poverty level—wages across both the early and long-term care segments of the caregiving sector that drive staff turnover and hamper recruitment of high-quality staff.

Within the early care and education sector, wage variations are tied to educational level, but are much lower than earnings of comparably-educated workers. For example, among those with Bachelor's degrees, the highest paid pre-K teachers working in public school-sponsored programs earn only 85 percent of comparably-educated kindergarten teachers. Early care and education workers in other settings with Bachelor's degrees are paid only 56 to 62 percent of the median earnings of kindergarten teachers.[46, 47]

Wages for the rest of the early care workforce are also low—in 2012, the overall median of center-based wages was $10.60 an hour. In every state, the median annual earnings for a child care worker falls below 150 percent of the poverty level for a family of three, and in 32 states, the median annual earnings are below poverty for a family of three.[48] As with Bachelor's level teachers, wages for early care staff vary among settings, and even within settings based on the age of the children served. These wage variations, largely driven by the fragmentation of funding and administration of care and education programs for very young children, undermine the stability of the labor force.

Like their early education counterparts, direct care workers that provide home and community-based long-term care are paid low wages, compounded by limited benefits and unstable work schedules. The median hourly wage was $10.09 for personal care aides and $10.54 for home health aides in 2015, well below the national median wage of $17.40, with median annual wages at $20,980 and $21,920 respectively.[49, 50] In all states for both categories of workers, wages fall below 200 percent of the federal poverty level.[51]

Not surprisingly, then, the low job quality leads to high turnover in the caregiving fields, affecting the quality of care for the families who rely on it. Historically, annual turnover rates within the early care and education sector have been around 30 percent, with compensation a key driver of staff exits.[52] Even those who want to remain in the ECE field may move to relatively higher paying positions in public school-sponsored programs as a result of this wage stratification, especially after they have obtained advanced education or credentials. This dynamic, and the high turnover rates it fosters within centers make it difficult for programs to initiate, employ and maintain improvements, and are associated with low program quality and negative outcomes for children.[53]

Turnover rates are even higher among direct care workers; over 60 percent of caregivers working for private duty home care companies quit or were fired from their jobs last year.[54] This high turnover, largely driven by job dissastisfaction, can disrupt the continuity of care for older adults[55] and affect clients' health. A study of participants in California's In-Home Supportive Services program showed that having a new home care worker during the year increased participants' odds of having a new injury, developing bed sores/contractures, and possible hospital admission compared to those who had the same home care worker through the year.[56]

INADEQUATE PUBLIC INVESTMENT IN MEETING FAMILIES' CAREGIVING NEEDS MISSES AN OPPORTUNITY TO SUPPORT THE CREATION OF GOOD JOBS.

The needs for caregiving for children, people with disabilties, and older adults present opportunities to put Americans who are currently unemployed or out of the labor force to work. This is only possible if current caregiving needs are converted into market demand for formal caregiving through enhanced public investments, and if jobs are structured to promote recruitment and retention of care workers.

While the unemployment rate has fallen back to pre-recession levels, younger workers and those with limited educational attainment continue to struggle to find employment, and more than 1.7 million workers have dropped out of the labor force altogether.[57] For many, additional personal challenges such as disability, limited English proficiency, and having a criminal record create barriers to reemployment. For example, more than a third of those who are not working (34 percent) report having a disability that prevents them from working, but half of them say they currently want a job.[58] Of surveyed adults between the ages of 25-54 who were not working, including both those who were unemployed and those who were out of the labor force, 34 percent of all prime working age men and 12 percent of women reported having a criminal record.[59]

Entry-level care positions could provide much-needed access to jobs for those with limited educational attainment and other barriers to employment, but low wages and minimal investments in training and education undermine the ability to attract and retain workers to the caregiving field.

Policy Recommendations

Increased public investment is critical to meet the early care and education needs of young children and the long-term caregiving needs of older adults and people with disabilities. Structured properly, these investments can ensure that care is provided through good jobs that support a high-quality workforce and provide employment opportunities for those who are currently left out of the economy. This report provides a framework for investments that can be adopted at the state and local level to expand access to formal care and improve the quality of caregiving jobs as a stimulus to local economies. However, getting to scale to meet the needs of families across the country will require the federal government to play a central role in shaping and funding investments that will significantly support the economy. The framework consequently includes a set of recommendations that are designed to support the provision of care by family members, leverage the federal government's role in financing caregiving to improve the quality of existing jobs in both early care and education and long-term support, and expand access to high-quality care by supporting employment in both segments of the caregiving sector.

1. SUPPORT PAID LEAVE TO ALLEVIATE THE IMPACT OF CAREGIVING ON FAMILIES

When possible and appropriate, enabling families to directly undertake their caregiving responsibilities is a critical step to reducing the financial and health impacts of caregiving, even if it may not drive job creation in the formal caregiving sector. Under the Family and Medical Leave Act of 1993[60] (FMLA), employers are required to provide employees who have worked at least 1,250 hours for them in the previous year with at least 12 weeks of unpaid, job-guaranteed leave for childbirth, adoption, foster care placement, a serious personal medical condition, or care of a child or spouse with a serious medical condition. However, too many Americans simply cannot afford to take time off without pay, regardless of the circumstances, and paid leave to cover care-related events specifically is scarcely provided as an employee benefit. Adopting a federal policy that would establish nearly universal access to paid family and medical leave would help families cope with short-term caregiving episodes, as well as reduce the immediate financial hardship for both new parents and family members of older adults and people with disabilities in need of long-term support, and would reduce the public cost of providing formal paid care for both short- and long-term needs.

2. FUND A WAGE PASS-THROUGH TO FEDERALLY FUNDED CAREGIVERS TO RAISE INCOMES, PROMOTE EQUITY AND IMPROVE WORKER RETENTION WITHOUT REDUCING THE AVAILABILITY OF FORMAL CARE

Increasing wages for early care and education and home care workers who provide services under federally funded programs is a necessary first step to stabilize and improve formal care arrangements. The federal government currently plays a critically important role in financing the provision of formal care, and could leverage its position to improve the quality of existing caregiving jobs by increasing payments to states that are specifically designated for and designed to raise wages for workers providing services pursuant to these programs, a vehicle known as a "wage pass-through." Establishing and funding these federal wage floors for care workers based on their training and educational attainment would address the lack of sufficient pay and inadequate benefits that are uniformly identified as the major obstacles to joining the field and the biggest challenges for those who want to continue, without redirecting existing resources that might result in reduced services.

Particularly in the early care and education field, a wage pass-through that is structured to normalize pay across settings and across age groups within settings would help eliminate instability within the system driven by current pay inequities. We calculated the estimated investment needed for a federally funded wage pass-through for center-based staff in two ways, yielding cost estimates of $12.2 to $13.8 billion. The cost of a wage pass-through for family child care providers would be around $196 million. According to our analysis projecting the impact of raising wages for federally funded early care and education providers on federal tax revenue, the use of public benefit programs, and local economic activity, these wage investments could conservatively generate a fiscal impact from $8 billion to more than $16 billion, representing more than half to almost 140 percent of the expected cost of the program.

3. INCREASE PUBLIC INVESTMENTS IN EARLY CARE AND EDUCATION AND LONG-TERM CARE TO INCREASE THE USE OF FORMAL CAREGIVING

a) Subsidize Formal ECE to Create New Jobs in the Sector and Expand Families' Access to High-Quality Care

Parents of young children who receive Child Care and Development Fund (CCDF) subsidies overwhelmingly elect to use their vouchers to secure center-based care, and research on parental perceptions and search for care suggests that parents highly value center-based care but find its cost prohibitively expensive without subsidies. That said, these preferences are necessarily based on the actual availability and quality of family child care and center-based care, and high quality family-based child care should remain an option for families, as some families will continue to prefer it.

Devoting new federal funding to cover the labor costs associated with staffing new early care and education classrooms with high-quality staff, with states and/or localities providing funding to cover ancillary related costs, would increase access to the kinds of care that parents prefer. This is the care that can also be best expected to promote children's intellectual, social and emotional development, but is currently out of reach for many families. Building out the early care and education infrastructure through centers could be complemented by the use of services in other settings, such as home-based care, supported by CCDF and related funding. In particular, vouchers could be used to target families in need of care during nontraditional hours or in remote areas through home-based care or other arrangements. Family child care providers who meet the same high quality standards as center-based programs could be included in the infrastructure expansion.

While high-quality care is defined by a complex mix of factors, research shows that two of the most significant drivers of quality are staff qualifications and compensation. The proposal seeks to support those elements, recommending that each class be staffed by one teacher aide (high school degree or less), one teacher's assistant (some college or Associate's degree) and a half-time lead teacher with a Bachelor's degree, who would be shared with another class. Provider-child ratios and maximum class sizes would follow the recommendations of the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education.[61] Subsidized classes would operate full-time, full-year to accommodate the needs of working parents and to maximize the benefits to young children. Parents would pay no more than 7 percent of their income toward the costs of care.

This staffing structure would also maximize the number of good jobs created, within a framework that is stable, cost efficient, and able to be integrated as desired into states' existing early care and education and quality rating systems. Staffing requirements would ensure that a share of the new jobs that result reasonably match the skill level of unemployed workers, and help ensure that adults from the communities of the children to be served have access to the jobs to be created. At the same time, because federal funding would be provided to support job expansion across a range of educational requirements, it would naturally help to create pathways for career advancement for entry-level staff.

As a starting point, we examined the cost and fiscal impact of providing early care and education under this structure to all children ages 0-5 in families with incomes at or below 200 percent of the federal poverty level who are not currently in a regular care arrangement. At full enrollment of this cohort, the program cost would be approximately $62 billion per year and would directly create approximately 1.3 million permanent jobs. We estimate that this program could generate around $70.9 billion in short-term impact on federal tax revenues, reduction in the use of public benefit programs, and increased local economic activity.

b) Establish a Universal Catastrophic Long-Term Care Insurance Program as a Component of or Companion to Medicare

As the U.S. adult population ages, there has been growing acknowledgment that the unpredictability of and nationwide need for long-term services and supports call for a risk-based solution that is financed through a combination of public and private funds. To create a system that is affordable and sustainable, recent recommendations to improve the financing of long-term care have called for the adoption of a universal catastrophic insurance program.[62] This solution would ease the burden on those who need catastrophic care and help provide clarity to families about the levels of public support that will and will not be available; it could also help alleviate states' Medicaid costs, while maintaining the program's essential role as a safety net for those who will not be able to afford to supplement the coverage provided by the universal system with either private long-term care insurance or personal assets. A federalized long-term care insurance program would also provide much-needed uniformity regarding services and payment levels in contrast to the current patchwork of support across the country under existing financing schemes.

c) Finance an Enhanced Federal Matching Rate for Medicaid Home and Community-Based Services to Expand Access to Long-Term Care More Immediately

While ultimately the adoption of a universal long-term care program would best meet families' needs, its establishment likely faces an extended path. In the interim—and to address its limitations for low-income families—the federal government should build on existing efforts that have encouraged states to expand access to LTSS and rebalance service delivery between institutional and home and community-based care. For example, providing an enhanced Medicaid matching rate to serve individuals deemed qualified to receive services under states' programs—over and above their present caseload levels, provided that they maintain waiting lists of those eligible—could encourage more states to maintain waiting lists and provide better information needed to estimate the levels of care needed.

4. EXPAND SELF-DIRECTION TO ADDRESS WORKFORCE SHORTAGES

Promoting self-direction, also called consumer direction, can be another important way to advance home care worker recruitment. In self-directed programs, participants can select and hire their home care worker(s) without the involvement of an agency. Studies have shown that home care consumers in self-directed programs were more likely to receive paid care than those assigned to agencies, because with worker shortages in many states, they could hire family members and friends to provide needed services.[63] Consumer direction can also lead to better pay for workers because the overhead costs are often lower, meaning that a larger share of the funding is available to go towards wages. The federal government should build on recent progress in expanding access to self-direction options by enhancing federal matching rates to incentivize self-direction more broadly.

5. ATTACH LIMITS ON ALLOWABLE COSTS INCLUDING EXECUTIVE COMPENSATION TO MEDICAID FUNDED HOME AND COMMUNITY-BASED SERVICES

For some, the provision of home and community-based long term care has become an outsized business opportunity; home care is an $88 billion industry[64] dominated by for-profit companies. In the private care industry at large, owners report gross profit margins of 38.3 to 40.5 percent.[65] Yet few of these financial benefits are passed along to the direct care workers who generate them in the form of sustainable wages and benefits. While analysis of provider payments and expenditures is needed to assess profiteering in the industry, public data suggest that cost controls on business spending could make funding available to better compensate home care workers. Following the lead of states, the federal government should limit executive compensation and explore limits on other expenses that would promote economic equality and help ensure that federal support is appropriately directed to fund high-quality services and the workers who provide them.

6. PROMOTE RECRUITMENT, RETENTION AND ECONOMIC MOBILITY OF THE CAREGIVING WORKFORCE WITH INVESTMENTS IN WORKFORCE DEVELOPMENT

While raising wages and improving benefits in federally funded caregiving jobs will make the sector a more attractive option for both existing and new workers, additional public initiatives and investments can also address other impediments to recruitment and retention. Across both early care and education and long-term care, enhanced opportunities for training and education can improve the quality of care jobs, the quality of care that is provided, and the possibilities for career advancement for formal caregivers. These include:

a) Standardizing and Financing Pre-service Training Infrastructure

Standardizing and financing a strong pre-service training infrastructure to support new care workers is necessary to improve the quality of care, remove barriers to employment, and reduce turnover.

Early Care and Education: Early care and education employment for people with limited skills can offer advancement opportunities into assistant and lead teacher positions. Increased public investment will expand the availability of good new jobs all along this career pathway. As workers advance, their progress will create new openings for positions that require no more than a high school education. To support these workers new to the field, investments will be needed in training, coaching, and mentoring. Intensive pre-service (before a job placement) training could reflect research from professional development programs in the K-12 sphere that suggests that intensive programs targeted to future teachers' instructional practice and curriculum are most likely to improve student outcomes.[66] Models specific to early care and education, such as the Department of Defense orientation process and the Initial Pre-service Training for Entry-Level Child Care Providers created by Child Care Aware of America, also provide a potential framework for the provision of education and training for new ECE workers.

Long Term Care: Too few home care employers invest in quality training for their workers, and the minimal training requirements currently applicable to federally funded programs do not require them to do more. Currently, there is no minimum federal training requirement for personal care attendants in Medicaid-funded programs, and minimum training requirements vary widely between states and between programs within states.[67] Within the long-term care arena, job preparation and quality would be enhanced by:

- Establishing more extensive training standards for Medicaid-financed services, especially those provided by personal care attendants, and provide funding to achieve them, to help ensure that workers are prepared to deliver high-quality services to patients.

- Including pre-service training as a reimbursable Medicaid expense—as it is for Certified Nursing Assistants in institutionalized care—either as part of administrative spending or as part of payment provider rates, would help support meeting new training mandates. Alternatively, Medicaid reimbursement, particularly if made at an enhanced federal match, could be used in the absence of a training mandate to incentivize states to increase their training requirements.

- Expanding support for Long-Term Care Registered Apprenticeship Programs for Home Health Aides, a competency-based apprenticeship that begins with entry-level training followed by a supervised practical module that exceed the federal requirements. Participants receive Certificates of Training or Interim Credential and incremental wage increases as they complete different levels of specialization. Successful implementation of the apprenticeship model in Washington State through the SEIU Healthcare NW Training Partnership supports the allocation of funding to replicate the program more broadly.

Securing an adequate caregiving workforce is critical to addressing the nation's long-term service needs in the coming decades. However, even with strategies designed to improve the quality of jobs and increase retention, the challenge of expanding the caregiving workforce will be compounded by demographic trends. First, the proportion of the United States population that is made up of older adults is expected to grow dramatically in the coming decades. Second, the population of women ages 25-54, the current typical caregiver demographic, will increase by only 1 percent by 2030.[68] Additional steps to expand access to those facing barriers to employment, for example those with limited English skills or criminal backgrounds, will help broaden the supply of available workers, and create good job opportunities for those otherwise disadvantaged in the labor market. These include:

- Providing training in multiple languages and making linguistically-accessible supervision available to support home care workers whose native language is not English. Having a linguistically diverse workforce will also help enhance the communication and coordination of care with clients and their families that is important to providing high-quality care.

- Ensuring that background-check-related disqualification of potential care workers be reasonably tailored to exclude only those who pose a risk to clients' health and safety, and be based on solid evidence of a connection between the prior offense and the risk of harm.69 Ensuring that there is a process through which applicants may appeal denials of employment, and that considers the passage of time since their conviction, extenuating circumstances, any rehabilitation they have undergone, and the connection of the disqualifying offense to their potential role will help to reduce barriers to employment and expand the potential caregiving workforce without unjustifiably risking the wellbeing of those who need care.

b) Investing in Training and Professional Development for Incumbent Workers

Increasing wages and benefits, and providing funding and access to pre-service education and training can all serve as effective recruitment tools for workers new to direct service work. But to further encourage out-of-work Americans to enter the caregiving sector, and to reduce the risk of turnover for them as well as those already in caregiving occupations, investments in ongoing education, training, and career pathways that offer economic mobility are necessary.

Early Care and Education: There is considerable debate in the early care and education world about the qualifications that make someone a "high-quality" teacher—including educational attainment, credentialing, and other specialization in the development of young children, along with temperament and other factors—and how they are correlated with high-quality care.[70] The staffing structure outlined in our proposal—specifically the goal to have every classroom attended at least half time by a Bachelor's level head teacher—has two purposes. The structure aims to ensure that young children benefitting from the expansion receive high-quality care, and to reasonably estimate the costs of recruiting and retaining qualified staff. If it is necessary to phase-in the expansion of the proposed center-based model, the staffing structure will create opportunities for advancement for lower level workers, if they have access to training and education along the continuum of knowledge, skills, and practices that characterize high-quality programs. This will entail:

- Supporting multiple pathways to licensure, including more teacher preparation programs and scholarships and other financial assistance;
- Devoting additional resources to increase capacity in terms of the professional development that is available,[71] as well as to reduce barriers—particularly financial barriers—that face ECE staff who want to access training and education;
- Making classes accessible, or employing instruction through distance learning strategies and interactive technology to help reduce logistical barriers to participation; and
- Expanding programs that produce graduate-level professionals who can serve as teachers and coaches.

Long-Term Care: As noted with respect to pre-service training, investments in training and ongoing education are inconsistent across the states, and universally underfunded.[72] The challenge of providing adequate training is compounded by shortages in supervisors and faculty trained in geriatrics and gerontology.[73] Consequently, lack of access to useful training is a key driver of job dissatisfaction, which can lead to turnover.

While further effort is necessary to identify standards for the type of training that is most effective, the Affordable Care Act included an array of training and workforce development grants related to establish and implement direct care standards, training and professional development programs, including:

- The Nursing Assistant and Home Health Aide Program;[74]
- Training Opportunities for Direct Care Workers;[75] and the
- The Geriatrics Workforce Enhancement Program.[76]

These initiatives reflected a formal recognition of the need to build capacity for training and workforce development for direct care workers, and appropriating funds to them on an ongoing basis will help address current inadequacies. To establish a systemic approach to integrate training investments into the infrastructure of home health care, the federal government could provide an enhanced Medicaid matching rate for the share of direct costs for training and education, up to a defined amount. This could incentivize states to either mandate or encourage providers to increase the availability of continuing education and training.

Further, providing education and training opportunities for home care workers that will lead to higher paying and more skilled jobs will help address current and future shortages projected not just for direct care workers, but also for other professionals specialized in geriatrics. This could include:

- Creating a pipeline of nurses in the gerontology field;
- Establishing new mid-level positions with enhanced roles and responsibilities and higher wages, such as an Advanced Direct Care Worker position;
- Developing other advanced roles, including those designed to enhance communication and coordination among an individual's care team and family members at the direction of the client; to provide support and mentoring to entry-level workers to help promote their competency and retention; or to establish a specialty for workers with training in palliative care or dementia.[77]

Conclusion

Policymakers across the ideological spectrum express the need for policies that create more good jobs. However, some proposals under serious consideration would at best fall far short of meeting the needs of American families and at worst undermine their existing economic security. In contrast, this report offers an opportunity to strengthen families through new investments that simultaneously create new high-quality jobs and remove a major obstacle that keeps too many adults out of the formal labor force.

The United States faces critical needs for caregiving that could give rise to good jobs, but—given families' limited financial resources—require more substantial public investment. The lack of affordable, formal care for young children, people with disabilities, and older adults affects their well-being as well as their family members' employment, health and well-being, and economic security. At the same time, those who are able to work and identify themselves as unemployed cite the lack of good jobs and the challenge of family responsibilities as the top reasons that they are currently out of work.[78] Expanding public investments to meet families' needs for early care and education and long-term services and supports can address both of these challenges.

Whether debating physical infrastructure, health care, or early care and family leave, policymakers should consider approaches that boost job creation, quality, and preparation while helping people meet their family responsibilities. We believe some of the best ideas that satisfy these considerations are laid out in this report.

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Further information about GCPI's ESOI is available at www.georgetownpoverty.org.

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Introduction

While the U.S. economy has officially recovered from its recent depths during the Great Recession, almost 3 in 4 Americans still rate the economy as only fair or poor, with two-thirds (66 percent) saying that there are not enough good jobs available[79] and almost half feeling that their incomes are falling behind the cost of living.[80] The economy is identified as the most important problem facing the country today,[81] and in communities across the country, families are uncertain about the prospect of a better future for themselves and their children.[82] This insecurity, and how to address it, was a key issue in the recent national elections.

For many families, the struggle to get by is compounded by the demands and expense of providing care for their young children or older family members. Despite decades of research documenting that high-quality early care and education benefits families, children, and our society more broadly, the high out-of-pocket cost continues to put formal care—of any quality—out of reach of many families. Public financing of care is limited and not structured to promote high-quality services; early care and education subsidy systems are underfinanced, fragmented, and difficult for parents to navigate. As a result, most children are in informal caregiving arrangements that fail to maximize their developmental potential, as parents are often forced to rely on informal care as they struggle to maintain their participation in the labor force.

A distinct but parallel set of circumstances faces people with disabilities and older adults in need of assistance to remain at home, and their family members. The estimated number of people who will need some type of long-term care is expected to almost double by 2050, and the majority will want to receive long-term support in the community, rather than in institutions.[83] While most care is currently provided informally by family members or friends, providing this care exacts financial, health, and other costs of informal caregivers, limiting their formal employment. Given coming demographic changes and the stress of caregiving, the demand for formal, paid caregiving is expected to increase. However, older adults and those approaching old age have inadequate resources to afford paid care on their own, and the limited publicly financed safety net for lower income older adults means that only a small share of those who need paid support actually receive it.

This report proposes caregiving jobs investments to address two national needs: the pressing need for caregiving; and the equally pressing need for good jobs. With these aims, we offer proposals that promote the well-being of children, older adults, people with disabilities, and their families by creating and sustaining good jobs in the caregiving sector.

We begin by reviewing the current state of caregiving, examining the needs, benefits and costs associated with the responsibilities of providing care. We focus primarily on the need for (1) early care and education for young children and (2) long-term services and supports for older adults, including older adults with disabilities. Issues specific to caregiving for children with disabilities and non-elderly adults with disabilities warrant full attention, but are beyond the scope of our review.

This report sets out the opportunities to expand the quantity and improve the quality of caregiving employment by creating good jobs to meet families' caregiving needs. In particular, it highlights common challenges facing families as they provide necessary care, and the ways in which current policies fail to provide access to formal, high-quality care. It concludes with a set of recommendations for increased public investment designed to expand access to quality care by financing good jobs in the caregiving sector, including for disadvantaged workers.

Current discussions about federally supported job creation based on national needs focus almost exclusively on infrastructure in the form of highways, bridges, and other structures. This attention is important, but too narrow in scope. Investment in national infrastructure needs should include education, housing, green energy, and caregiving. All address unmet national needs and put Americans to work. This is particularly the case for caregiving, for three key reasons:

1. Investment in social care provision such as early childhood development and home health care can generate twice as many jobs per dollar as infrastructure construction due to the high labor intensity of the care sector, among other factors.[84]

2. Investments in the caregiving sector are uniquely effective at increasing employment because they both directly create jobs and enable family members with caregiving responsibilities to seek and maintain employment.

3. An infrastructure investment that includes high-quality caregiving jobs would more comprehensively strengthen families and communities. An infrastructure plan encompassing the caregiving jobs recommendations outlined in this report will provide jobs that reach people outside the construction and related sectors. Currently, caregiving jobs are disproportionately filled by women while construction jobs are disproportionately filled by men.[85] That said, the very investments recommended by this report would increase the gender diversity of the caregiving workforce.

Well designed physical infrastructure investments are long overdue, but the Trump Administration's physical infrastructure proposals are not well designed. They provide additional tax handouts to investors in projects that likely would have existed without the subsidies, wasting taxpayers' resources while limiting the job creation potential.[86]

Similarly, well designed investments in caregiving are desperately needed. They should be evaluated based on the extent to which they expand access to care for those who have the greatest needs, improve care quality, and create new good jobs. President Trump's care proposals fall short on all counts. His proposals center on expanding tax subsidies for child and elderly dependent care expenses that would offer very little help to working families who are paid the least.[87] Further exacerbating this inequality, his plans to cut non-defense discretionary spending by $54 billion on top of already scheduled cuts will reduce essential funding for existing child care assistance programs that help low- and moderate-income families.[88] In addition, these proposals would do little if anything to improve the quality of care. And the White House proposals appear to offer no direct strategy for strengthening the caregiving workforce. On top of these ill-advised infrastructure and care proposals, the White House and House Republicans have put forward a budget and a health care bill that would exact dangerous cuts in Medicaid, a major source of funding for long-term services and supports (LTSS).[89]

Our proposal combines added public resources to support the nation's caregiving infrastructure with careful workforce development policies to meet caregiving needs through high-quality caregiving jobs across the country. While entry-level care positions could provide much-needed access to jobs for those with limited educational attainment and other barriers to employment, recruitment and retention of workers in these parts of the caregiving sector are undermined by low wages, limited or no benefits, unstable scheduling, and difficult working conditions, coupled with limited training and opportunities for career advancement. Structuring public investments to improve the quality of these jobs is critical for mitigating the high turnover in these caregiving occupations that undermines the quality of care.

This report examines these factors across both the early care and education and the long-term supports and services segments of the caregiving sector. It starts with a snapshot of the current economic situation as the basis for additional public investment to create good jobs, and then reviews the needs, benefits and costs associated with Americans' caregiving responsibilities for young children and older adults. It concludes with a set of policy recommendations (and estimates of their short-term economic impact for the core early care and education recommendations) designed to help Americans—both those with caregiving responsibilities and those who are looking for work—gain a steady financial foothold in a changing economy.

The Need for Good Jobs

During the last major debate about using public investment to stimulate job creation, our economy was in crisis. In 2009, when the American Recovery and Reinvestment Act passed, 700,000 jobs were lost each month and 12.9 million Americans were out of work.

While the picture is different today—the U.S. economy has regained the 8.7 million jobs that were lost following the onset of the Great Recession and, as of March 2017, experienced 78 months of job growth—a detailed examination of the current labor market argues for the ongoing need for ambitious job creation strategies. Purposeful investments in caregiving jobs become an economic imperative when understood in the context of families' pressing needs for formal early care and education and long-term care, which can only be addressed through public financing that drives a sizeable increase in quality employment.

Unemployment

Labor market data make clear that the economy is far from producing employment for all who desire it, particularly younger workers and those with limited education. More than 7.8 million people, including more than 4.4 million prime age workers ages 25-54, are unemployed and actively looking for work as of August 2016.[90] Younger workers are substantially more likely to be unemployed than older workers, as shown in Figure 1. Especially hard hit are workers ages 16-19 without a high school degree; their unemployment rate is 19.5 percent. However, unemployment and underemployment of younger workers with high school or college degrees are also elevated compared to their pre-recession levels.[91]

FIGURE 1. Unemployment by Age

AGE	UNEMPLOYMENT RATE	NUMBER OF UNEMPLOYED
16-19	15.7%	938,000
20-24	8.1%	1,246,000
25-34	5.2%	1,861,000
36-44	4.1%	1,331,000
45-54	3.6%	1,232,000
55+	3.5%	1,268,000
	TOTAL	**7,876,000**

Source: Bureau of Labor Statistics, Current Population Survey, August 2016.

Finding a job is still a challenge for prime age workers as well, especially those with limited education, for women, and workers of color—populations that typically fill jobs in the early care and education and long-term care fields, the expansion of which could provide significant opportunities to employ these workers. Figure 2 details unemployment rates by gender and race across the whole population by education level. Men and women have fairly equal rates of unemployment, except that female workers with less than a high school degree have significantly higher unemployment rates than similarly educated men. African-American workers face the greatest difficulty in the labor market, with markedly higher unemployment rates across all educational levels compared to other workers.

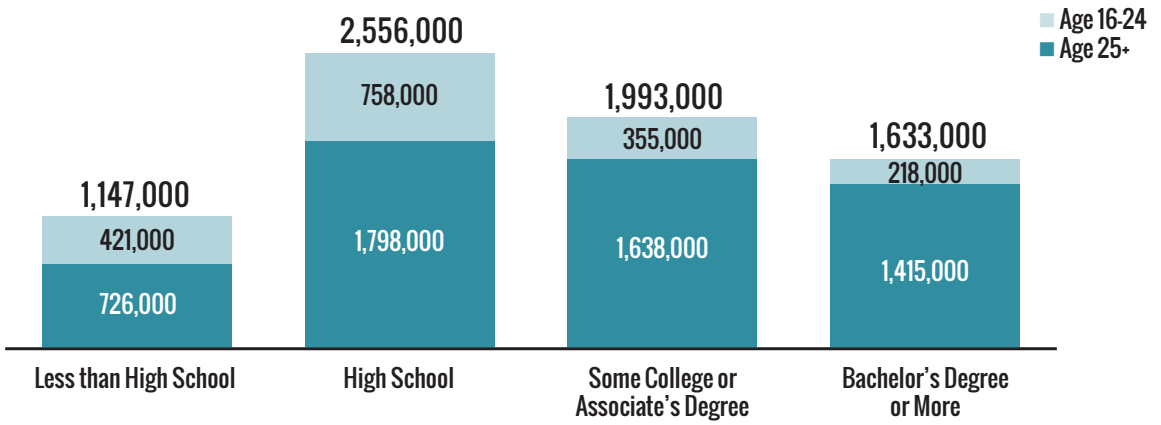
FIGURE 2. Unemployment by Educational Attainment, Population Aged 25 Years and Over

	ALL	Less than High School	High School	Some College or Ass.	Some College	Associate Degree	Bachelor Degree
Unemployment Rate	4.9%	7.2%	5.1%	4.3%	4.8%	3.8%	2.7%
Unemployed (in thousands)	7,849	774	1,808	1,601	1,057	581	1,450
Male	4.0%	5.4%	4.5%	3.9%	4.0%	3.7%	2.7%
Female	4.2%	9.3%	5.6%	4.9%	5.6%	4.0%	3.4%
White	3.8%	5.6%	4.2%	3.9%	4.2%	3.6%	2.9%
African American	7.6%	14.5%	8.2%	6.5%	7.0%	5.4%	4.4%
Hispanic (any race)	4.8%	5.2%	4.3%	5.2%	5.3%	5.1%	3.7%
Asian	3.7%	3.7%	4.7%	4.2%	4.5%	3.9%	3.1%

Source: Bureau of Labor Statistics, Current Population Survey, August 2016. Tables A-10, A-13, A-14, A-17 (Not Seasonally Adjusted). Available at http://www.bls.gov/cps/tables.htm.

As is generally the case, workers with higher educational attainment have lower unemployment rates than less educated workers. Developing good job opportunities that can be filled by workers with limited education—such as entry-level positions in early care and education and long-term care—are critical to improving the prospects of these workers. Of the unemployed in August 2016, over 3.7 million had a high school degree or less. Figure 3 shows the absolute size of the unemployed by educational attainment.

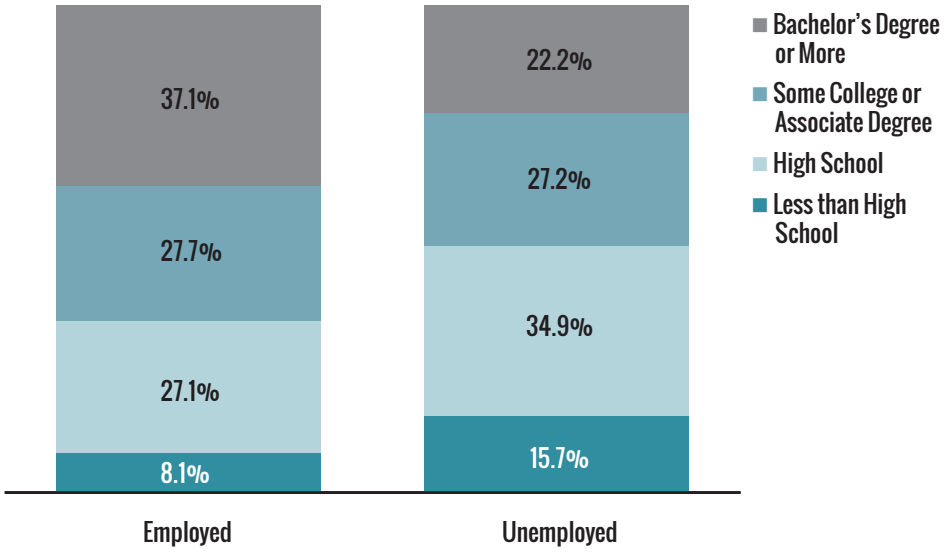
FIGURE 3. Number of Unemployed, by Educational Attainment, Aged 16+



Source: Current Population Survey, August 2016, Tables A-16, A-17.

Figure 4 shows that lower skilled workers are disproportionately represented among the unemployed compared to the employed. As of August 2016, workers with less than a high school degree made up almost 16 percent of the unemployed, but just over half that share of the employed workforce.

FIGURE 4. Education Distribution of Employed and Unemployed



Source: Current Population Survey, Tables A-16 & A-17, August 2016 (not seasonally adjusted).

More importantly, unemployment rates are only one indication of the need for jobs in America, and the decline in unemployment since the Great Recession masks ongoing weakness in labor force participation. Many workers have now given up actively searching for work, but have looked for employment within the last year and would take a job if one were offered.[92] More than half a million others are "discouraged"—reporting that they are no longer searching for a job because they do not believe that there are opportunities in their line of work or that they have the education or training necessary to compete for current openings, or because of perceived discrimination.[93] Together, these 1.7 million "marginally attached"[94] workers, when combined with the underemployment of the 6.1 million individuals who are working part-time but want full-time jobs,[95] yield an underemployment rate of 9.7 percent.[96]

Labor Force Participation

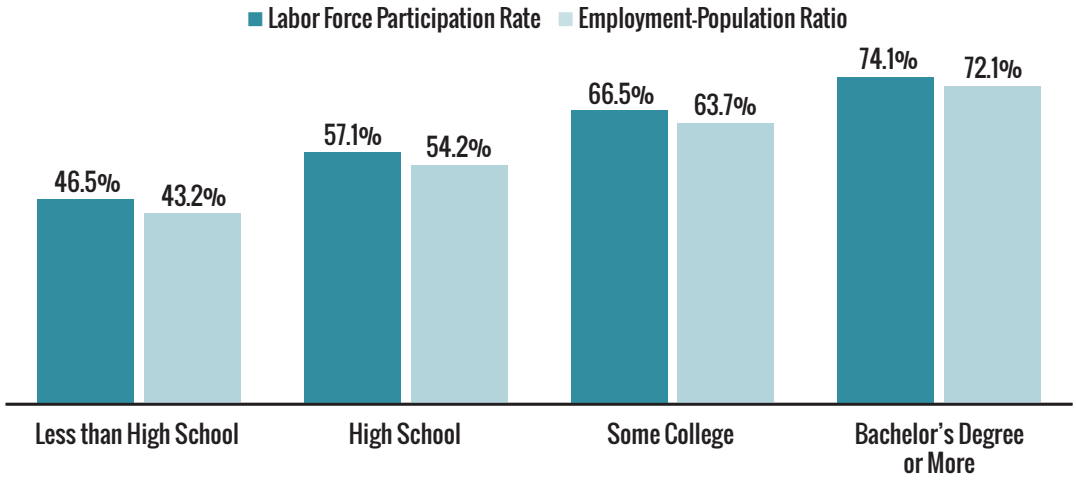
The ongoing challenges of finding employment in the economy post-recession have consequently affected the labor force participation rate, which measures the share of people over the age of 16 either working or seeking employment. Prior to and through the beginning of the recession until October 2008, it stood at 66 percent. After finally starting to rise in September 2015, labor force participation ticked back down to 62.8 percent in April 2016, where it remained as of August 2016.

Labor force participation reflects trends other than simply the availability of jobs, of course. It reflects demographic trends as well. The aging and retirement of the Baby Boom population has depressed labor force participation, while at the other end of the age spectrum, 16-24 year olds have been more likely to remain in school than in the past, though a higher share are out of work and out of school than prior to the recession.[97] Likewise, the labor force participation rate for prime-age workers (those 25-54 years old) was 81.3 percent as of August 2016, still well below its pre-recession level in December 2007, when it stood at 83.1 percent.[98]

Employment-to-Population Ratios

The share of a population employed, or the employment-to-population ratio, is another key marker of labor market attachment and the prospective health and growth of the economy. As with labor participation, the employment-to-population ratio, which was 59.7 percent as of August 2016, reflects marked differences based on educational attainment. As detailed in Figure 5, while nearly 3 of 4 Americans over the age of 25 with at least a bachelor's degree were either working or seeking employment, the labor force participation rate falls to less than half (46.5 percent) for those with less than a high school diploma.[99] Similarly, the employment-to-population ratio ranges from 43.2 percent among those with less than a high school degree to over 72 percent for those with a bachelor's degree or more.[100]

FIGURE 5. Employment Status by Educational Attainment, Age 25 and Older (August 2016, seasonally adjusted)



Source: Current Population Survey, August 2016. Table A-4.

In particular, declines in the labor force participation of women have helped drive its downward trend, especially in relation to other high-income OECD countries.[101] Of the 83.2 million Americans over the age of 20 who are not in the labor force, more than 6 in 10 are women; their labor force participation rate as of September 2016 is 57 percent, significantly lagging that of men (71.9 percent).[102] According to researchers, almost a third of the decline in female labor participation relative to other countries is attributable to the lack of family-friendly policies.[103]

Barriers to Employment

Even as the labor market continues to improve, there is no doubt that millions of people who are able and willing to work are still underemployed, unemployed, or too discouraged to actively seek work. For many, personal and structural challenges such as disability, limited English proficiency, and having a criminal record create barriers to employment:

Disability

Just over 10 percent of the U.S. population ages 18-64 is identified as having a disability.[104] Approximately 7 in 10 of those between the ages of 16-64 who have a disability are not in the labor force.[105] More than a third of those who are not working (34 percent) report having a disability that prevents them from doing any kind of formal work, but half of them say they currently want a job.[106]

Of those ages 16 and over with a disability who are in the labor force, 11.3 percent (679,000 workers) were unemployed as of August 2016; more than double the overall unemployment rate.[107]

People with disabilties were less likely to have a bachelor's degree or higher education than those with no disability, compounding the disadvantages faced by people with disabilities as a group.[108]

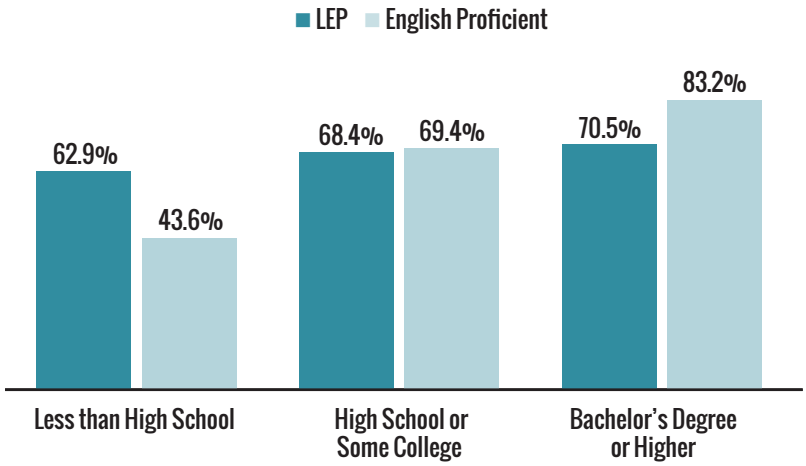
LIMITED ENGLISH PROFICIENCY

Roughly 19.2 million Americans ages 16-64 are considered to be limited English proficient (LEP), almost 10 percent of the working age population.[109] The overwhelming majority of these LEP

adult workers—87 percent—are immigrants.[110] LEP adults are slightly less likely to be in the labor force (71 percent) and working (64 percent) than working-age adults who are English proficient (with labor force participation of 74 percent and employment rates of 67 percent, respectively.[111])

Educational attainment affects the employment of LEP adults differently than the English-proficient population. Among those ages 25-64 without a high school diploma, LEP adults are 19 percentage points more likely to be employed than those who are English proficient, but they are 13 percentage points less likely to be employed when they have a bachelor's degree or more[112] (see Figure 6). Further, highly skilled but LEP immigrants are twice as likely to work in jobs requiring lower levels of skill or education than the degree they have attained than those who are language proficient.[113]

FIGURE 6. Employment to Population Ratio for LEP and English Proficient Working Age Adults, by Educational Attainment, 2012



Source: Wilson, Jill H. "Investing in English Skills: The Limited English Proficient Workforce in U.S. Metropolitan Areas." Metropolitan Policy Program, The Brookings Institution, September 2014. Available at http://www.brookings.edu/~/media/Research/Files/Reports/2014/09/english-skills/Srvy_EnglishSkills_Sep22.pdf?la=en.http://www.brookings.edu/~/media/Research/Files/Reports/2014/09/english-skills/Srvy_EnglishSkills_Sep22.pdf?la=en.

These employment differences affect earnings; LEP adults earn 25 to 40 percent less than equivalently educated workers who are English proficient.[114] One in 5 of those over the age of 5 who speak a primary language other than English at home fall below the poverty level.[115] As of 2013, about half of the total immigrant population of 41.3 million was LEP.[116] Since immigrants are expected to account for all of the growth in the U.S. labor force through 2050,[117] identifying employment strategies and opportunities that match their skill levels will be key to promoting their economic well-being.

CRIMINAL RECORDS

The National Employment Law Project has estimated that around 70 million people in the United States have some type of criminal record.[118] In a survey of adults between the ages of 25-54 who were not working, including both those who were unemployed and those who were out of the labor force, 34 percent of all prime working age men and 12 percent of women reported having a criminal record.[119]

State regulations on employment and eligibility for business and occupational licenses and certifications restrict employment opportunities for those with any felony record as well as for some types of misdemeanors. Every state has at least 41 mandatory employment restrictions related to felony records, with a total of more than 6,000 mandatory restrictions for felonies in

place across the country.[120] In addition, the oversupply of workers for available job openings has made it easier for employers to adopt hiring requirements, including bans on those with criminal records, that may have little connection to or impact on the actual work to be done. It has been shown that the personal contact that occurs through hiring interviews better enables employers to consider job applicants' qualifications and capabilities, reducing the negative impact of a criminal record and increasingly leading to offers of employment;[121] however, screening policies that require initial disclosure of a criminal history exclude these workers from opportunities for entry-level employment or reemployment.

Job Quality

Without a concerted national strategy, a disproportionate share of new jobs may be poorly paid, low-skill employment as has typified the post-recession period. Job losses in the recession were concentrated among the industries and occupations that provided better earning and advancement opportunities; as of 2014, there were 1.2 million fewer jobs in middle- and high-wage industries than prior to its start.[122] Conversely, the economy added more than 2.3 million jobs in low wage industries over the same period, and since the recession job growth remained concentrated in low wage occupations, accounting for 41 percent of job growth from July 2013 through July 2014.[123]

At the same time, lower- and mid-wage occupations have experienced proportionately greater declines in their real wages than did higher-wage occupations from 2009 through 2014.[124] Without significant policy changes, this is foreboding for Americans looking for work, since 6 of the 10 occupations that the Bureau of Labor Statistics project to be the highest-growth jobs in the coming years experienced real wage declines of 5 percent or more between 2009 and 2014.[125]

As a result, even the employed find themselves in a precarious state. About 42 percent of workers in the United States earn less than $15/hour, including more than half (54.1 percent) of African American workers and almost 60 percent of Latino workers.[126] Women represent more than half (54.7 percent) of all workers making less than $15/hour, disproportionate to their share of the workforce (48.3 percent).[127] While it is clear that we need to create opportunities to employ those who are out of work, it is also critical that investments be structured to support good jobs that offer sustainable employment, and that in turn exert wider labor market pressure on employers to raise wages.

The Need for Caregivers

Finally, there are critical needs for caregiving that could give rise to good jobs, but that families can not afford themselves and that require significant public investment. The lack of affordable, formal care for young children, people with disabilities, and older adults affects their family members' employment, health and well-being, and economic security. Three out of 5 (61 percent) prime age workers who are unemployed or out of the labor force report that their last job ended after the start of the Great Recession, and almost an equal share say that they currently want a job.[128] For those who are able to work and identify themselves as unemployed, the lack of good jobs (66 percent) and family responsibilities (52 percent) are the top reasons they cite for currently being out of work.[129] Expanding public investments to meet families' needs for early care and education and long-term services and supports can address both of these challenges, as described in the next sections of this report.

Early Care and Education

Child care has become an increasingly critical part of life for most American families. For all parents of young children, but particularly single and low-income parents, reliable child care plays an essential role in supporting employment and economic self-sufficiency.[130] At the same time, there is growing recognition that children, especially disadvantaged children, can benefit in the short and long term from properly structured time spent outside of parental care. Investments in high-quality early care and education can produce sizable net economic and social returns, as discussed below. However, our early childhood public policy does not enable all parents to access affordable, reliable, high-quality care and education for their young children. By extension, the nation is missing opportunities not only to support parents' employment, promote family economic security, and enrich the lives and futures of our youngest children, but also to create good jobs and a pathway to economic mobility for low-income Americans through increased public investments in a service infrastructure that promotes high-quality early childhood care and education.

High-Quality Early Care and Education Benefits Working Families and Our Economy

As more mothers have joined the workforce, and as single parent families have become more prevalent, the need for care of preschool children ages 0-5 has become vital to parents' efforts to secure and maintain employment. Today, nearly 60 percent of American families with children under the age of 6, including both single parent and married couple households, have all parents in the workforce.[131] Of working parents with children under the age of 6, 95 percent of all fathers and 74 percent of mothers are employed full time.[132] As a result, 3 out of 5 of the more than 20.4 million children under the age of 5 are in a regular care arrangement at least once during a typical week.[133] On average, children ages 0-5 of working mothers spend 26 hours per week in non-parental care.[134]

Not surprisingly then, 57 percent of parents of young children identify child care as an economic necessity, with three-quarters of parents designating it as the most or one of the most important ways to help working families.[135] Most immediately, securing stable, reliable care enables parents to

get to work. For example, employer-provided financial assistance for child care has been shown to reduce families' work-family stress,[136] which in turn reduces employee absenteeism, turnover, and business costs. More than half of employers (54 percent) who provide child care services report that it had a positive impact on employee absenteeism, reducing missed workdays by as much as 20 percent to 30 percent;[137] access to on-site child care has also been shown to reduce employee turnover by 37 percent to 60 percent.[138] One analysis of the financial benefit to parents showed that five years of high-quality, full-time care and education increased the opportunities of primary caregivers to obtain their own education, training, and employment, supporting an increase in their individual gross earnings conservatively estimated at around $4,000 per year (in 2016 dollars), with a total lifetime impact estimated at more than $90,000 (2016 dollars).[139]

PARTICIPATION IN HIGH-QUALITY EARLY CARE AND EDUCATION CAN PRODUCE COST-EFFECTIVE, LASTING GAINS FOR CHILDREN AND SOCIETY

At the same time, an increasing understanding of the value of educational and social enrichment before children enter the K-12 system has focused attention on young children's access to high-quality care. A meta-analysis of early care and education studies indicates that children in higher-quality programs tend to have better social skills as well as better academic and language outcomes, particularly when they are enrolled as 2- and 3-year-olds and experience enrichment over an extended time.[140] Participation in a high-quality early childhood educational program generates positive and persistent benefits, including both improved school readiness for children regardless of their race, ethnicity, and economic background[141] as well as later academic success.

The benefits of high-quality ECE has been documented through the rigorous longitudinal evaluations of now well-known model early care and education initiatives, including the Chicago Child-Parent Centers (CPC) program, North Carolina's Abecedarian Project, and the High/Scope Perry Preschool Project. For example, children who had participated in the federally funded CPC preschool programs throughout 24 high poverty neighborhoods demonstrated improved school readiness, lower rates of grade retention and special education placement, and reduced special education tenure through elementary school; they were also 29 percent more likely to graduate from high school than their peers who had not attended preschool.[142] Similar results were found for participants in the Perry Preschool Project, who outperformed peers on tests of intellectual achievement throughout their school years, and were 44 percent more likely to graduate from high school than peers who had not attended preschool.[143] Those who had attended the Abecedarian preschool program, remarkably, were four times more likely to have graduated from college by the age of 30 than peers who had not attended preschool.[144]

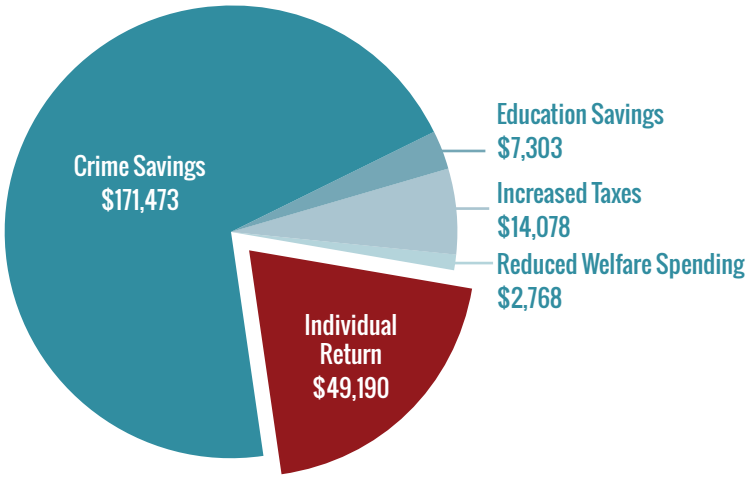
Just as importantly, the benefits of high-quality early care and education for children have been connected not only to academic success, but also to long-term positive health, social, and economic outcomes. Participants in the model programs were more likely to exercise and less likely to have a history of substance abuse into their teen years and adulthood, and demonstrated significantly lower risk for obesity, heart disease, stroke, and diabetes as they aged.[145] Participation has also been associated with significantly lower rates and overall numbers of arrests for all types of offenses,[146] which persisted from youth through adulthood.[147] Preschool participants of model programs also were more likely to be employed and had higher median earnings and more stable living arrangements than their peers by age 40.[148]

As analysis of these programs has demonstrated, investments in early care and education can offer high returns on public financing by significantly improving young children's educational, social and economic success when they are directed toward high-quality programs that meet the needs

of both children and their parents. Long-term cost-benefit comparisons based on longitudinal outcomes for participants in the model programs have shown annual rates of return of 7 to 10 percent for the Perry program, for example.[149] On average, every dollar spent on high-quality early education is estimated to stimulate returns of roughly $8.60, with investments returning from $2.50 to more than $12, accruing to both program participants and to the general public.[150]

One analysis of the economic return to society of the Perry Preschool program illustrates the breadth of the impact of high-quality early care; the return was $244,812 per participant on an investment of $15,166 per participant—$16.14 per dollar invested (in constant 2000 dollars discounted at 3 percent). Of that return, $195,621 went to the general public—$12.90 per dollar invested, and $49,190 went to each participant—$3.24 per dollar invested.[151]

FIGURE 7. Perry Preschool Program, Illustrated Economic Benefits (Adjusted 2000 Dollars)



Source: Schweinhart, Lawrence J., et al. "Lifetime Effects: The High/Scope Perry Preschool Study through Age 40." High/Scope Press, 2005. Available at http://www.highscope.org/file/Research/PerryProject/specialsummary_rev2011_02_2.pdf.

Preschool program participants earned 14 percent more per person than they would have otherwise—$156,490 more over their lifetimes in undiscounted 2000 dollars. Male program participants cost the public 41 percent less in crime costs per person—$732,894 less in undiscounted 2000 dollars ($1,011,833 in adjusted 2016 dollars)[152] over their lifetimes.[153]

Access to preschool has historically focused on its benefits to lower income children. Children from low-income families show overall gains in language and social skills from formal early care, with larger benefits associated with "good to high" quality care.[154] However, recent evidence suggests that participation is helpful even for children from middle income families. For example, an analysis of the Early Childhood Longitudinal Study revealed that while low-income children participating in a non-Head Start, center-based early childhood education program showed the greatest gains in reading and math skills, middle-income children also showed modest gains compared to children who were cared for at home.[155] In another example, an evaluation of Oklahoma's universal preschool program, for example, implementation produced substantial gains across all participants, but with the largest improvements seen among children from lower-income families.[156] These findings suggest that high-quality early education can help all students while shrinking or forestalling the achievement gaps between poorer and minority children and their more advantaged peers, and thus help reduce economic inequality.

High Cost Puts High-Quality Formal Care Out of Reach of Too Many Families

Despite these potential benefits, the reality is that too few children have access to the kinds of stable, high-quality care that supports parental employment and benefits children academically and socially. The high cost of quality care, and the limited public subsidies available to help parents pay for it, mean that only a small fraction of young children receive the kind of care that will promote their development and generate long-term economic returns.

For parents, the decision about whether and how much to work hinges in no small measure on the availability of a child care arrangement that will meet both their work demands and their concerns for their children's well-being. In a survey of parental perceptions and selection of care, almost half (47 percent) of households with a child under 5 had searched for care in the past 24 months.[157] For those who considered more than one provider, fees (39 percent), type of care (36 percent), and available hours (35 percent) were the top characteristics they had asked about in their search.[158] Center-based programs were the type of care most seriously considered, especially among parents who investigated more than one option (80 percent).[159]

What they were likely to find would be daunting to most parents. The cost of care varies based on the type of provider and the age of the child.[160] Generally, care in center-based programs is more expensive for infants and toddlers than for 3- and 4-year olds; the cost of care also varies widely among types of programs themselves, especially depending on where they are located.[161] Using information gathered from providers through the National Survey of Early Care and Education, Figures 8 through 11 compare the median cost of care across early childhood settings as a share of various family income thresholds.[162]

FIGURE 8. Cost of Center-Based Care, by Age in 2012 dollars

	AGE			
	< 12 months	2-year-old	3- year-old	4- year-old
Median Hourly Cost (2012 dollars)	$4.40	$4.10	$3.70	$3.60
Weekly Cost for one child, at 40 hours/week	$176	$164	$148	$144
Annual Cost, at 52 weeks/year	$9,152	$8,528	$7,696	$7,488
Annual cost as share of U.S. Median Income for Family Households, 2012 = $64,053[163]	14.2%	13.3%	12.0%	11.7%
Annual cost as share of U.S. Median Income for White, Non Hispanic Family Households, 2012 =$72,587[164]	12.6%	11.7%	10.6%	10.3%
Annual cost as share of U.S. Median Income for Black Family Households, 2012 = $42,611[165]	21.5%	20.0%	18.0%	17.6%
Annual cost as share of U.S. Median Income for Hispanic Family Households, 2012 =$42,578[166]	21.5%	20.0%	18.1%	17.6%

Source: "Prices Charged in Early Care and Education: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2015-45, March 2015. Available at http://www.acf.hhs.gov/sites/default/files/opre/es_price_of_care_toopre_041715_2.pdf.

FIGURE 9. Hourly Prices Charged by Regulated or Publicly-Listed Home-Based Providers

	AGE		
	< 12 months	2-year-old	4-year-old
Median Hourly Cost (2012 dollars)	$3.20	$3.00	$3.00
Weekly Cost for one child, at 40 hours/week	$128	$120	$120
Annual Cost, at 52 weeks/year	$6,656	$6,240	$6,240
Annual cost as share of U.S. Median Income for Family Households, 2012 = $64,053[167]	10.4%	9.7%	9.7%
Annual cost as share of U.S. Median Income for White, Non Hispanic Family Households, 2012 =$72,587[168]	9.17%	8.6%	8.6%
Annual cost as share of U.S. Median Income for Black Family Households, 2012 = $42,611[169]	15.6%	14.6%	14.6%
Annual cost as share of U.S. Median Income for Hispanic Family Households, 2012 =$42,578[170]	15.6%	14.7%	14.7%

Source: "Prices Charged in Early Care and Education: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2015-45, March 2015. Available at http://www.acf.hhs.gov/sites/default/files/opre/es_price_of_care_toopre_041715_2.pdf.

The vast majority of unlisted home-based providers—from 72 percent to 83 percent, depending on the age of the child—provide free services to children in their care, most of whom are likely friends or family members. However, the median charge for paid care with these unregulated providers is slightly higher than that of listed home based providers.[171]

FIGURE 10. Hourly Prices Charged by Unlisted, Home-Based Providers

	AGE		
	< 12 months	2-year-old	4-year-old
Median Hourly Cost (2012 dollars)	$3.40	$3.40	$3.60
Weekly Cost for one child, at 40 hours/week	$136	$136	$144
Annual Cost, at 52 weeks/year	$7,072	$7,072	$7,488
Annual cost as share of U.S. Median Income for Family Households, 2012 = $64,053[172]	11.0%	11.0%	11.7%
Annual cost as share of U.S. Median Income for White, Non Hispanic Family Households, 2012 =$72,587[173]	9.74%	9.74%	10.3%
Annual cost as share of U.S. Median Income for Black Family Households, 2012 = $42,611[174]	16.6%	16.6%	17.8%
Annual cost as share of U.S. Median Income for Hispanic Family Households, 2012 =$42,578[175]	16.6%	16.6%	17.6%

Source: "Prices Charged in Early Care and Education: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2015-45, March 2015. Available at http://www.acf.hhs.gov/sites/default/files/opre/es_price_of_care_toopre_041715_2.pdf.

A comparison of median early care and education costs across settings to poverty levels demonstrates the cost burdens to the lowest income families, as shown in Figure 11.

FIGURE 11. Median Early Care and Education Costs as a Share of Poverty Level Income

CENTER-BASED	AGE			
	<12 months	2-year-old	3- year-old	4- year-old
Annual Cost (2012)[176]	$9,152	$8,528	$7,696	$7,488
Cost for one child as share of Income at 100% Federal Poverty Threshold for a Family of 3: $18,480 (2012 dollars)[177]	49.7%	46.1%	41.6%	40.5%
Cost as Share of 200% Federal Poverty Threshold for a Family of 3: $36,960 (2012 dollars)	24.8%	23.1%	20.8%	20.2%

HOME-BASED, LISTED	AGE		
	<12 months	2-year-old	4- year-old
Annual Cost (2012)[176]	$6,656	$6,240	$6,240
Cost for one child as share of Income at 100% Federal Poverty Threshold for a Family of 3: $18,480 (2012 dollars)[177]	36%	33.8%	33.8%
Cost as Share of 200% Federal Poverty Threshold for a Family of 3: $36,960 (2012 dollars)	18%	16.9%	16.9%

HOME-BASED, UNLISTED	AGE		
	<12 months	2-year-old	4- year-old
Annual Cost (2012)[176]	$7,072	$7,072	$7,488
Cost for one child as share of Income at 100% Federal Poverty Threshold for a Family of 3: $18,480 (2012 dollars)[177]	38.3%	38.3%	40.5%
Cost as Share of 200% Federal Poverty Threshold for a Family of 3: $36,960 (2012 dollars)	19.1%	19.1%	20.2%

The U.S. Department of Health and Human Services considers care to be affordable when parent fees amount to no more than 7 percent of a family's income.[178] As shown in Figures 9, 10 and 11, care of every type for just one child, with the exception of care for a toddler or preschooler with a listed home-based provider, is unaffordable under this standard for a majority of American families, and particularly out of reach for low-income households.

This cost of care data is consistent with surveys of families with a child under the age of 5 who paid for child care, who reported spending an average of $179 per week in 2011.[179] While on average this equated to 10.5 percent of family income, the burden of paying for care varied significantly depending on income level. For those with monthly incomes below $1,500, child care expenditures amounted to almost 40 percent of their income, compared to 18.8 percent for those with monthly incomes between $1,500 and $2,999 and 13.3 percent for those earning $3,000 to $4,499 a month.[180] Families living in poverty that relied on paid care report spending roughly 30 percent of their income on child care, four times that of families with income above the poverty line.[181]

When parents are asked what, if any, steps they recently took to be able to afford these expenditures for care, nearly 2 in 10 report having used their savings to cover child care costs.[182] More than 1 in 10 said they have had to move their children away from a formal arrangement, moved closer to relatives who could help, or transferred their child to a lower quality setting.[183] Compared to parents in poverty or higher income parents, those earning low (but above poverty) incomes were the most likely to identify an inability to afford care as the basis for changing their child care arrangements (35 percent of low-income parents versus 23 percent of all parents).[184]

Not surprisingly, concerns about the cost of child care were commonly cited in an analysis of parents on a waiting list for child care assistance, 90 percent of whom were single mothers.[185] Parents universally reported highly valuing safe, reliable, high-quality child care, but 19 percent of parents reported having found all child care centers and family child care providers to be unaffordable. Some parents indicated having chosen lower quality care due to financial constraints. Others used a more preferred provider despite the unsustainability of the cost; 18 percent of parents reported spending at least 50 percent of their income on child care for all their children at least once in the course of the study, and others who had selected higher quality care reported going into credit card debt, relying on loans from family and friends, and falling behind in child care payments to their providers.[186] Others juggled their expenses to maintain their care arrangements, paying rent or utilities late or running out of food in order to pay for child care on time.[187]

Existing Public Early Care and Education Financing and Delivery Systems are Under-Resourced, Fragmented, and Difficult for Parents to Navigate

Unfortunately, for parents unable to pay privately for care, public support is limited and not structured to promote high-quality services. The patchwork of overlapping public funding streams for early care and education at all levels of government makes it difficult to assess their overall impact on the availability of affordable care for young children. However, information from individual programs make clear that the current level of public financing supports only a small share of families who need it.

The government's role in subsidizing care and education of preschool age children has focused primarily on enabling low-income women—particularly those who utilize public assistance—to work. Improving the developmental prospects of poor children through educational enrichment has been secondary. The bulk of public funding for child care assistance is provided through the federal Child Care Development Fund (CCDF), authorized under the Child Care and Development Block Grant,[188] and its related programs. States are required to contribute matching funds and provide resources to meet Maintenance-of-Effort[189] requirements, and may also allot federal funds from their Temporary Assistance for Needy Families (TANF) block grants to support child care services. Under the CCDF, children are eligible for assistance if:

- they are under 13 or are under 18 and have special needs;
- their family income is under 85 percent of the state median income, and;
- their parents are working or participating in education or training.[190]

In FY2014 (2013-2014), spending on child care assistance including both CCDF and TANF funds was $11.3 billion, a decrease of $103 million from 2013 to 2014 and the lowest nominal level since 2002.[191] Of this amount, $8.4 billion was in state and federal CCDBG funds ($6.5 billion federal), $1.1 billion in federal TANF funds spent directly on child care, and $1.6 billion in additional state Maintenance-of-Effort funds.[192]

Additional federal assistance is provided to families through the Head Start and Early Head Start programs. These programs were established to provide comprehensive services, including case management; educational, nutritional, and mental health services; and health and dental screenings to low-income children and to help parents guide their children's socio-emotional development. Head Start, which serves 3- and 4-year-old children living in poverty[193] and their families, and Early Head Start, which serves pregnant low-income women and children ages 0-3, were appropriated a total of $8.6 billion in FY2014.[194]

In addition to the direct subsidy-based funding provided through CCDF, Head Start and Early Head Start, the federal government provides tax benefits through the Child and Dependent Care Tax Credit (CDCTC) to help offset families' dependent care (including child care) expenditures, valued around $3.5 billion annually.[195] The CDCTC provides a credit worth between 20 and 35 percent of eligible child care costs, up to $3,000 for a child under the age of 13, subject to a maximum of $6,000 per family. Families with annual incomes below $15,000 qualify for the full 35 percent rate, which then falls by 1 percent for every $2,000 in additional income and hits a floor at 20 percent for those with incomes at or above $43,000.[196] Only 12.1 percent of families with children are estimated to benefit from the CDCTC, with an average credit of $553.[197] Because the credit is nonrefundable, low-income families—particularly those in the lowest quintile of earners—who have little to no federal income tax liability receive few of its benefits.[198] In addition, maximum credit amounts are not adjusted annually for child care cost growth or overall inflation.

In many states, these funding sources are supplemented with additional resources. For the 2014-2015 school year, 42 states and the District of Columbia spent over $6.2 billion on preschool programs serving 3- and 4-year olds.[199] Spending on pre-K programs varies widely among the states, from a high of $16,431 per enrolled child in the District of Columbia to less than $2,000 per child in South Carolina and Mississippi. Average state spending per enrolled child was $4,489 in 2015, $777 less than in 2002 (in 2015 dollars).[200] The federal government, through its recently-initiated Preschool Development Grant Program, provides some additional support to states' efforts to build a high-quality preschool infrastructure and expand access to all 4-year-olds from low- and moderate-income families in high-need communities; $237 million was allocated to 18 states under the program for 2014.[201] For FY 2011 through 2013, the federal government also provided competitive grants of over $1 billion to 20 states to establish integrated systems designed to provide high-quality services and increase access to care for low income and disadvantaged infants, toddlers and preschoolers through the Race to the Top Early Learning Challenge Grants.[202]

FIGURE 12. Major Federal and State Expenditures on Early Care and Education

	SOURCE	SPENDING ($ BILLIONS, 2014)
Direct Expenditures	Child Care and Development Fund (state and federal)	8.5
	Direct TANF	1.1
	State Maintenance of Effort	1.6
	Head Start and Early Head Start	8.6
	Public Pre-Kindergarten[203]	5.5
	Preschool Development Grant Program	.237
Tax Expenditures (federal)	Child and Dependent Care Tax Credit	3.51
	TOTAL	**29.047**

Sources: "Child Care Assistance: A Vital Support for Working Families." Center for Law and Social Policy, June 2015. Available at http://www.clasp.org/resources-and-publications/publication-1/CCDBG-Advocacy-Fact-Sheet.pdf.

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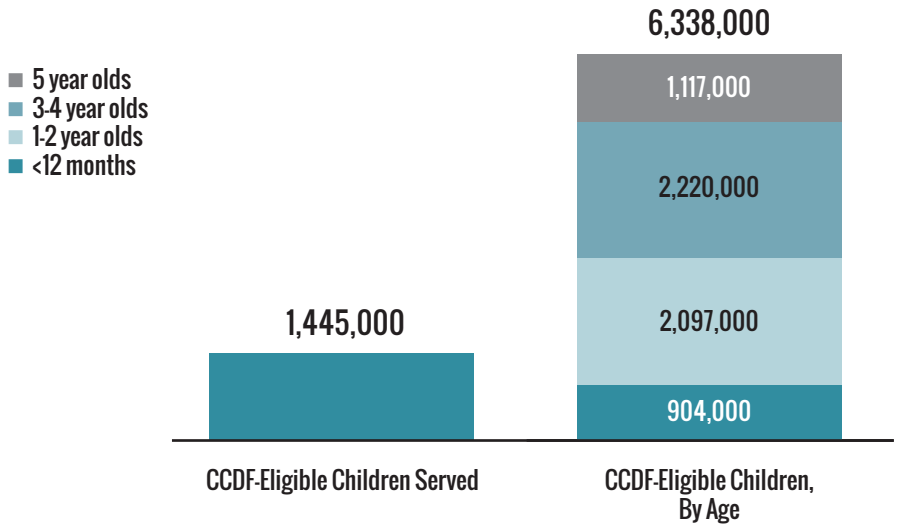
DUE TO LIMITED FUNDING, ONLY A FRACTION OF ELIGIBLE CHILDREN RECEIVE ASSISTANCE

As noted above, overlap in the eligibility and financing of publicly funded programs makes it difficult to establish a comprehensive and precise count of the number and characteristics of children served. Nevertheless, as estimates of eligibility and receipt as reported by individual programs outlined below show, current funding levels fail to serve an overwhelming majority of families that are otherwise eligible for support:

- Approximately 1.4 million children received assistance under the CCDF in FY 2014, 930,600 of whom were ages 0-5.[204] As of 2012 (the latest year for which complete data are available), 6,338,000 children age 5 or younger were potentially eligible for child care assistance under the CCDF and related government funding streams pursuant to federal rules, but only 1.4 million received CCDF and related subsidized care that year, approximately 23 percent of those eligible.[205] This included less than half of eligible children up to age 4 who were living in poverty in FY2012, with participation dropping steeply for families at higher income levels.[206]

FIGURE 13. Share of CCDF-Eligible Children Served, 2012.



Source: "ASPE Issue Brief: Estimates of Child Care Eligibility and Receipt, 2012." Office of Human Services Policy, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, November 2015.

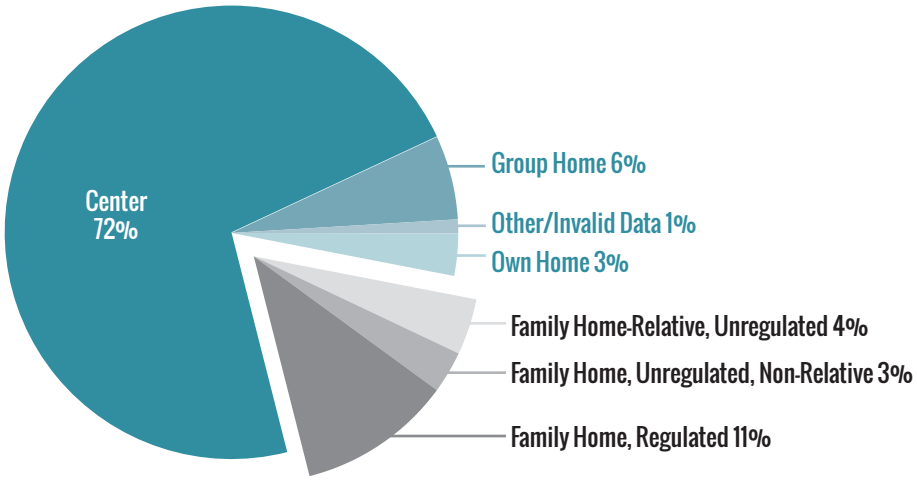
- In 2013-2014, Head Start served more than 885,000 low-income 3- and 4-year-old children, about 42 percent of those eligible.[207] Of those served, 41 percent were white, 30 percent were black or African-American, and 36 percent were Latino (regardless of race).[208] Four percent of children in Head Start also received a child care subsidy.[209]
- Early Head Start served 145,308 low income children under the age of 3 in 2014, only 4 percent of those eligible.[210] 46 percent were white, 25 percent were black or African-American, and 35 percent were Latino (regardless of race).[211] Seven percent of children in Early Head Start also received a child care subsidy.[212]
- State funded programs provide relief for few families, especially for younger children. As of the 2014-2015 school year, around 1.38 million children were enrolled in state preschool programs, approximately 86 percent of whom are four year olds.[213] Even with the expansion of some state pre-K programs since 2011, only 29 percent of 4-year-olds, and less than 5 percent of 3-year-olds were enrolled in state-funded pre-K programs in 2014-2015, an increase of just one percentage point since 2010 due to unstable funding in other jurisdictions.[214]

DELIVERY OF PUBLICLY FUNDED CARE

Child care support provided through CCDF and related funding is almost entirely provided on an individual basis—that is, eligible families who are approved to receive assistance are issued a voucher and charged with the responsibility to identify and secure a provider who will accept it. In part, this reflects a principle grounded in the authorization of the CCDF: the primacy of parental choice with respect to provider. For FY 2014, 40 out of 50 states reported having zero contracts or grants directly with child care centers, and in 32 states, 100 percent of assistance was provided to families in the form of a certificate.[215]

Notably, though, utilization of CCDF by parents is primarily in center-based care: in FY 2014, nearly three-fourths (74 percent) of 0-5 year olds receiving CCDF assistance were in child care centers, and 18 percent were in family child care homes. Of the latter group, 4 percent were cared for by relatives, 3 percent were cared for in their own home, and 6 percent received care in a group home.[216] Reflecting the importance of quality and safety to parents' decisions regarding care, 86 percent were cared for in regulated settings.[217]

FIGURE 14. CCDF—FY 2014 (Preliminary Data) Average Monthly Percentages of Children Served in All Types of Care



Source: "Characteristics of Families Served by the Child Care and Development Fund (CCDF) Based on Preliminary FY 2014 Data." Office of Child Care, Administration for Children and Families, U.S. Department of Health and Human Services, 26 May 2015. Available at http://www.acf.hhs.gov/programs/occ/resource/fy-2014-ccdf-data-tables-preliminary.

The overwhelming selection of center-based care by those who receive subsidies is consistent with National Survey of Early Care and Education data regarding parental perceptions and ratings of different types of care. Parents of newborns to 5-year-olds perceive care by a relative or friend most highly in terms of its flexibility, affordability, and provision of a nurturing and safe environment, while they rate center-based care most highly for educational preparedness.[218] Parents' perceptions of different types of care vary by household income, with both parents below the federal poverty level as well as those with incomes above 300 percent of federal poverty level rating center-based care as excellent or good, especially for nurturing and affordability, more often than did those with incomes in between.[219] Those with incomes below the federal poverty line also had the lowest perceptions of relative and friend care as providing a nurturing environment and as being affordable.[220] In a separate study of single mothers' child care choices and expenses, subsidized families tended to use center care and nonsubsidized families tended to use relative care.[221]

As in the general early care and education market, the average monthly subsidy under the CCDF varies by the type of provider and the age of the eligible child, as shown in Figure 15. For FY 2014, the average national monthly subsidy for family child care was $345, and $413 for center-based care.

FIGURE 15. Average Monthly CCDF Subsidy, by Age and Early Care Arrangement (2014)

	AGE				
	< 12 months	1 to < 2 years	2 to < 3 years	3 to < 4 years	4 to < 5 years
Child's Home	$305	$312	$306	$295	$293
Family Home	$390	$408	$394	$377	$300
Center	$521	$516	$488	$452	$308
Weighted Average	$489	$496	$475	$444	$310

Source: "Table 15: Characteristics of Families Served by the Child Care and Development Fund (CCDF) Based on Preliminary FY 2014 Data." Office of Child Care, Administration for Children and Families, U.S. Department of Health and Human Services, 26 May 2015. Available at http://www.acf.hhs.gov/programs/occ/resource/fy-2014-ccdf-data-tables-preliminary.

States are required to use a market-based assessment in setting subsidy rates under the CCDF to help ensure parental choice and access to a range of providers and particularly to high-quality care. However, a comparison of the national average monthly subsidy provided under CCDF[222] for the most commonly-used types of care to the median cost of care in those settings ascertained by the NSECE[223] shows a divergence that suggests that parents' choice of where to use their certificates could be constrained to fewer than half of providers.

FIGURE 16. Comparison of CCDF Subsidies to Median Cost of Care

		AGE			
		< 12 months	1 to < 2 years	2 to < 3 years	3 to < 4 years
Family Home	CCDF average monthly subsidy (2014)	$390	$408	$394	$377
	NSECE median monthly cost, Listed Home-Based Provider (in 2014 dollars)	$571	*cost info only provided for 2 year olds	$536	$536
Center	CCDF average monthly subsidy	$521	$516	$488	$452
	NSECE median monthly cost, Center-Based Care (in 2014 dollars)	$785	$733	$660	$643

Source: "Table 15: Characteristics of Families Served by the Child Care and Development Fund (CCDF) Based on Preliminary FY 2014 Data." Office of Child Care, Administration for Children and Families, U.S. Department of Health and Human Services, 26 May 2015. Available at http://www.acf.hhs.gov/programs/occ/resource/fy-2014-ccdf-data-tables-preliminary.

See also "Prices Charged in Early Care and Education: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2015-45, March 2015. Available at http://www.acf.hhs.gov/sites/default/files/opre/es_price_of_care_toopre_041715_2.pdf.

Figures inflated to 2014 dollars using CPI Inflation Calculator, http://data.bls.gov/cgi-bin/cpicalc.pl.

In a similar vein, the vast majority of children enrolled in state-funded prekindergarten are in programs where funding levels are considered to compromise the provision of a quality education; only 15 states—serving 13 percent of the total children enrolled in state-funded pre-K—have been assessed as spending enough per child to meet established quality benchmarks.[224] As one scholar has noted, expanding public subsidies for low cost care, including supporting informal arrangements, has increased work participation, especially for low-income women but produced little if any of the potentially large benefits for children.[225]

EARLY CARE AND EDUCATION SUBSIDIES HAVE TANGIBLE BENEFITS

For the families that do receive subsidies under the CCDF, the assistance is significant. More than 1 in 4 families (26 percent) served under the CCDF in FY 2014 had no copay for child care, and for those who did, the national average monthly copay represented only 7 percent of their countable income.[226] Analysis of the impact on families who had been waitlisted for and subsequently received child care subsidies revealed that their total out-of-pocket costs were reduced by $188/month per child (2007 dollars) and the share of family income spent on child care decreased 7 percentage points per child.[227] Approximately half of parents who received a subsidy reported that it positively affected their financial well-being, allowing them to afford non-child care services, save money, and pay bills or debts.[228] Even those who were disappointed at how little subsidies affected their own family finances appreciated the opportunity that the support afforded them to use formal child care arrangements.[229]

As importantly, the provision of support increases parents' earning power by expanding their availability to work. Single mothers of children under the age of 5 were more likely to be employed, and to work full-time, when they received subsidized child care.[230] Parents who received government subsidies to help pay for children care worked five hours more per week on average than those parents who had sought assistance but were either placed on a waiting list for subsidies or became discouraged by the application process.[231]

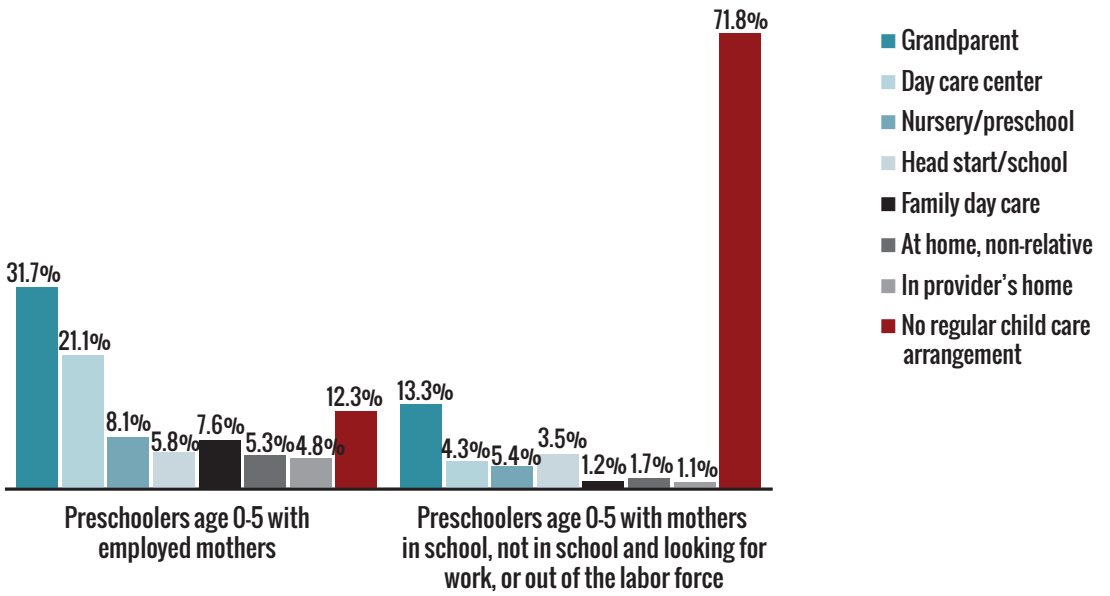
High Cost of Care and Limited Subsidies Narrow Caregiving Options

The combination of the unaffordability of formal care and limited public assistance leads many families to rely largely on informal arrangements to meet their care needs. For low- and moderate-income families, working or not, this means forgoing the opportunity for their children to engage in programs that would promote their cognitive and social development.

- Of the 12.5 million children ages 0-5 in a regular care arrangement each week, fewer than one-fourth are in center-based care, either a day care center (13.4 percent), nursery or preschool (6 percent) or Head Start or school arrangement like kindergarten (5.6 percent).[232]
- Despite the acknowledged benefits of and recent expansion of prekindergarten programs in some states, only 42 percent of 4-year-olds and 15 percent of 3-year-olds were enrolled in a preschool or Head Start program as of 2014.[233]
- Another 7.8 percent of young children receive care in a provider's home, including 4.6 percent in family day care.[234] Most predominantly, around 4 in 10 children (42 percent) under the age of 5 are cared for by a relative, including more than three-fourths of those with working mothers. These caregivers are predominantly grandparents.[235]

Working families typically rely on multiple care strategies, including juggling work schedules, to cover their child care needs. Almost 3 in 10 preschoolers of employed mothers were in multiple arrangements, typically in nursery school or preschool combined with care by a grandparent or nonrelative on a regular basis.[236] Children who attend day care centers, which typically have longer hours, are less likely to be in multiple arrangements than those in nursery or preschool.[237]

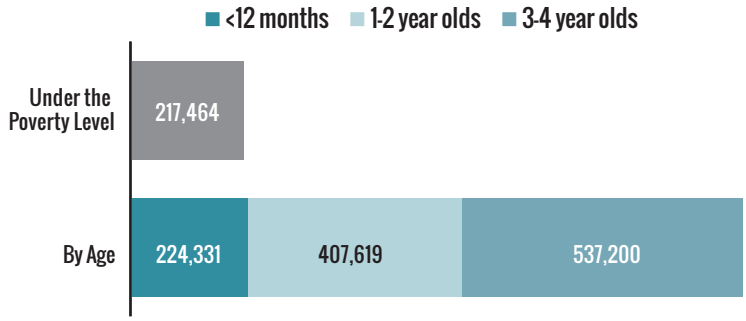
FIGURE 17. Preschoolers' Care Arrangements



Source: Laughlin, Lynda. "Who's Minding the Kids? Child Care Arrangements: Spring 2011." Current Population Reports, U.S. Census Bureau, April 2013, P70-135. Available at https://www.census.gov/prod/2013pubs/p70-135.pdf.

Most significantly, almost 7.8 million children under the age of 5—around 39 percent of all young children—are not in a regular care arrangement during the week.[238] While the vast majority of them (83 percent) have mothers who are either in school, looking for work, or not employed, more than 1.3 million of them are the children of working mothers, as shown in Figure 18.[239]

FIGURE 18. Number of Children of Working Mothers without a Regular Care Arrangement, by Poverty and Age



Source: Laughlin, Lynda. "Who's Minding the Kids? Child Care Arrangements: Spring 2011." Current Population Reports, U.S. Census Bureau, April 2013, P70-135. Available at https://www.census.gov/prod/2013pubs/p70-135.pdf.

The lack of access to formal, high-quality care by young children from relatively disadvantaged families is particularly troubling:

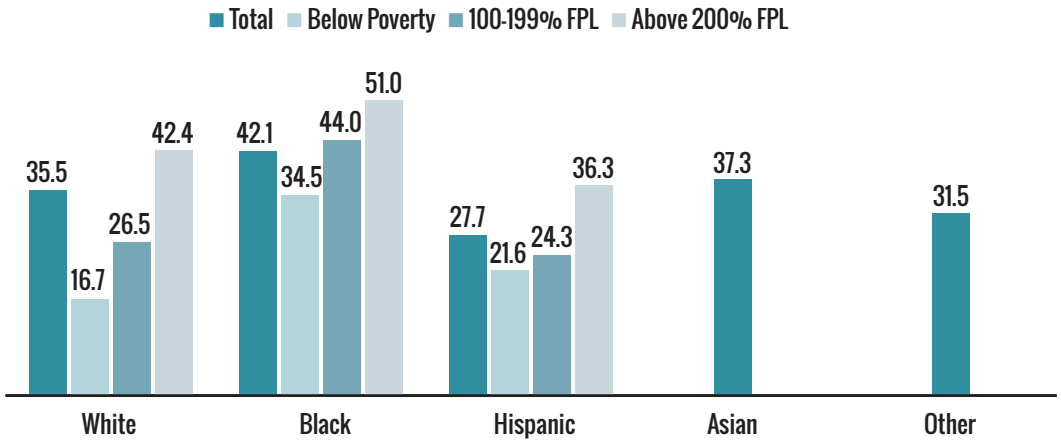
- Almost 3 of 4 preschool age children (71.8 percent) whose mothers were either in school, not in school and looking for work, or out of the labor force are not in a regular care arrangement, including more than 2.5 million 3- and 4-year-olds.
- Of those children with mothers who were not employed, more than 68 percent of those living in poverty and almost 75 percent of those from families between 100 and 199 percent of the poverty level—3.79 million children—were not in any regular care arrangement.[240]

- Half of all children who were not in regular care had parents with a high school degree or less education.[241]
- Fewer than 15 percent of those below poverty with non-working mothers were in center-based programs that would provide opportunities for educational and other enrichment.[242]

In fact, limited participation in center-based care is the norm across families. An estimated 6.98 million children ages 0-5 (not yet in kindergarten) are enrolled in some 129,000 center-based programs that provide care and education.[243] As of 2012, only 34.3 percent of all children ages 0-5 participate in some kind of center-based program, and because programs may be only part-day, or because full-time arrangements are unaffordable, fewer than 3 in 10 are enrolled in a center-based program as their primary care arrangement.[244]

While center-based enrollment is fairly consistent across racial and ethnic groups (see Figure 19), current levels of participation may intensify socioeconomic disparities. Young children whose mothers are not in the labor force are enrolled in center-based programs at roughly half the rate (22.3 percent) of those whose mothers are employed (43.1 percent). Those children whose mothers have at least a bachelor's degree are enrolled at more than double the rate (43.4 percent) of those whose mothers have less than a high school degree (20.5 percent).[245] Fewer than 1 in 4 children (23.7 percent) ages 0-5 whose family incomes were below the poverty line spent any time in center-based care.[246]

FIGURE 19. Percentage of Children Under 6 Participating in Center-Based Programs



Source: Mamedova, Saida, Jeremy Redford, and Andrew Zuckerberg. "Early Childhood Program Participation, From the National Household Education Surveys Program of 2012." Institute of Education Sciences, National Center for Education Statistics, U.S. Department of Education, May 2015. See Table 202.30: "Number of children under 6 years old and not yet enrolled in kindergarten, percentage in center-based programs, average weekly hours in nonparental care, and percentage in various types of primary care arrangements, by selected child and family characteristics."

Instead, children living in poverty with an employed mother were more likely to rely on grandparents (30 percent) and fathers (29 percent) for care than on day care centers (16 percent) or family day care providers (4 percent), while children in families above the poverty line were more likely to be in a day care (24 percent) or nursery school (9 percent).[247]

For families who can afford access to formal child care settings, especially for those children who cannot rely on friends or family members for care, these arrangements present an opportunity to stimulate their development and lay the groundwork for their success and well-being later in life. However, two-thirds of all low-income children receive care in early care and education settings that do not meet the quality standards shown to produce developmental

gains.[248] Generally, all forms of care need improvement. Data on the quality of infant-toddler care suggest that it is often of "low and mediocre quality," while only a third of center-based preschool programs and 10 percent of home-based care are rated as "good" or better.[249]

The quality of home-based child care provided by non-relatives—family child care—has not yet been found to produce the positive effects associated with high-quality center-based programs.[250] An analysis of the differences between licensed formal arrangements—including center-based, Head Start, and prekindergarten programs—and informal, lightly or unregulated care settings including family child-care homes as well as in-home care or unpaid care outside of the child's home by either relatives or non-relatives showed significant differences in the quality of care, as indicated by measures of exposure to reading and math activities and outdoor play, important activities for children's cognitive and social development.[251] The most striking differences concerned television viewing; 4-year-olds in informal care watched an average of two hours of television each day, compared to only seven minutes on average for those in formal care.[252] Access to good early care and education is rare across all groups, but to the extent that high-quality care exists, it disproportionately serves already advantaged children, thus increasing rather than addressing inequalities.[253]

Lack of Access to High-Quality Formal ECE Undermines Parents' Labor Force Participation

Many parents struggle to stay in the labor force as they balance their two greatest concerns about childcare—quality and affordability. When asked to identify their single greatest concern regarding the care of their children, nearly 4 in 10 (38 percent) choose quality as their highest concern; the cost of care is their second biggest concern (20 percent).[254] In the face of these challenges, many parents struggle to maintain their participation in the labor force. Nearly 3 in 10 working parents report being absent, tardy, or having difficulty focusing at work due to a disruption in child care within the previous three months.[255] The average working parent in America misses five to nine days of work each year attributable to child care problems, at a productivity cost to U.S. businesses of $3 billion annually.[256] Among parents with children under the age of 18, more than half of women and 16 percent of fathers report that being a working parent made it harder to advance in their job or career.[257]

Estimates suggest that the aggregate value of wages that parents forego to care for their young children is about **$96 BILLION ANNUALLY.**

For some parents confronting the challenge of finding affordable quality care—particularly mothers—the answer is to curtail or give up working entirely. In 2015, the labor force participation rate for women with children under 6 years of age was 64.2 percent.[258] For those with children under 3, the participation rate drops to 61.4 percent.[259] Overall, the share of women with children under 3 that is employed—whether married or not—is around 57 percent.[260] More than 4 in 10 women report reducing their work hours at some point in order to care for a child or family member, compared to 28 percent of men.[261] Thirty-nine percent of women state that they had taken a significant amount of time off from work, and almost 3 in 10 (27 percent) describe quitting their job to care for a child or family member, compared to 24 percent and 10 percent of men reporting the same interruptions, respectively.[262] Estimates suggest that the aggregate value of wages that parents forego to care for their young children is about $96 billion annually.[263]

These interruptions can also have longer term impacts on work and earnings; thirteen percent of women report giving up a promotion to be able to care for their children, and around a third of women who had reduced their hours or taken a significant amount of time off identify these actions as having hurt their careers.[264] The Center for American Progress estimates that the cumulative loss of wages, lost wage growth, and lost assets is valued at three or four times parents' annual salary for each year that they are out of the workforce.[265] The lack of affordable, high-quality care is a key driver of these decisions. Among parents who consider themselves to be homemakers and are able to work but haven't looked for a job in the past year, 31 percent said that they would be much more likely to consider going back to work if they were offered child care.[266]

The Early Care and Education Workforce

The high cost of care and limited financial support available to families contribute to low-quality jobs across the early care and education workforce. Parents' limited capacity to pay for care and inadequate levels of public funding directly constrain the compensation, qualifications, and stability of the early childhood education workforce. Both teachers' general education level and specific training related to young children have been shown to influence teaching quality and children's learning and development,[275] and ensuring that child care programs are sufficiently high-quality is key to realizing its potential long-term social and economic benefits.

As the preceding discussion of funding and placement reveals, the early care and education sector is complex and interwoven. The ECE sector includes formal and regulated paid care provided in both homes and centers that may be for-profit or non-profit and variously funded by range of public and private financing, as well as both paid and unpaid informal care provided by families and friends. Despite these variations in settings, ECE workers are commonly underpaid and undervalued, and the failure to invest in them, as well as the system that they support, undermines the quality of care that young children receive.

SIZE AND MAKEUP OF THE ECE WORKFORCE

Nationwide, there are approximately 4.7 million caregivers and individuals caring for children in the ECE work force. As revealed in the discussion of children's care arrangements, the majority of providers are unpaid family members or friends who care for children in home settings and are not listed in state or national registries, constituting approximately 2.7 million caregivers serving almost 4.1 million children age 0-5 for at least five hours per day.[276]

Additionally, approximately 2 million paid caregivers—including teachers, assistant teachers, and aides—work directly with children ages 0-5; of these, approximately half (995,000) work in center-based settings and half (1,035,000) provide paid, home-based care.[277]

Of paid home-based providers, an estimated 603,400 care only for children with whom they had a previous personal relationship, and approximately 433,750 are considered to be "publicly-available."[278]

These publicly available paid home-based providers can be listed—meaning they are listed on state or national registries as licensed, regulated, registered or license exempt—or unlisted. Approximately 118,000 home-based providers are listed, and care for an estimated 751,000 children ages 0-5.[279] More than 9 in 10 of them care for at least one child with whom they had no prior relationship.[280]

NONSTANDARD WORK AND THE NEED FOR FLEXIBILITY

In addition to affordability, flexibility is a key driver of parents' care arrangements for their young children, particularly for low-income workers who are more likely to work nontraditional or irregular hours. More than 3 in 10 children of mothers who were employed had mothers who worked a nonday shift;[267] about half of them are on irregular schedules.[268] While there is some suggestion that married couples or parents with partners choose nonstandard hours to enable parent/partner care, almost 3 in 4 low-income mothers work nonstandard schedules involuntarily.[269]

Child care options are constrained for these parents. Only 8 percent of center-based ECE providers offer care during evenings, overnights, or weekends.[270] Home-based providers are more likely to offer appropriate coverage, but even among them, unpaid friend and family member caregivers are the most likely to offer care during some non-standard hours (82 percent) compared to 63 percent of unlisted paid caregivers and 34 percent of listed, home-based providers.[271] Accordingly, then mothers with a spouse or partner who work non-day shifts overwhelmingly rely on fathers (41.7 percent) or grandparents (35.5 percent) for care.[272] Single parents also regularly rely on nonresidential parents as caregivers.[273]

Especially for low-income parents who may not be guaranteed standard work hours, flexibility in both scheduling and paying for care can be a crucial factor in the affordability of care. However, only around 4 in 10 center-based providers are likely to offer variable hours and accommodate flexible payments; home-based providers are more likely than center-based programs to offer both kinds of flexibility, with the availability of flexible hours more than 20 percent more likely to be offered than flexible payments.[274]

Collectively, this workforce is overwhelmingly female. According to the Bureau of Labor Statistics, 96.8 percent of preschool/kindergarten teachers and 94.9 percent of child care workers are women, in the context of a labor force where women make up 46.8 percent of the employed population over the age of 16.[281] While precise racial and ethnic demographics relating to the formal ECE workforce are not available, the Bureau of Labor Statistics (BLS) estimates that of preschool teachers, 16.1 percent are African-American, 3.4 percent are Asian, and 12.2 percent are Hispanic (regardless of race), while a similar share of child care workers are also minorities (15.3 percent African-American, 3.3 percent Asian and 19.1 percent Hispanic).[282]

EDUCATIONAL ATTAINMENT OF ECE STAFF

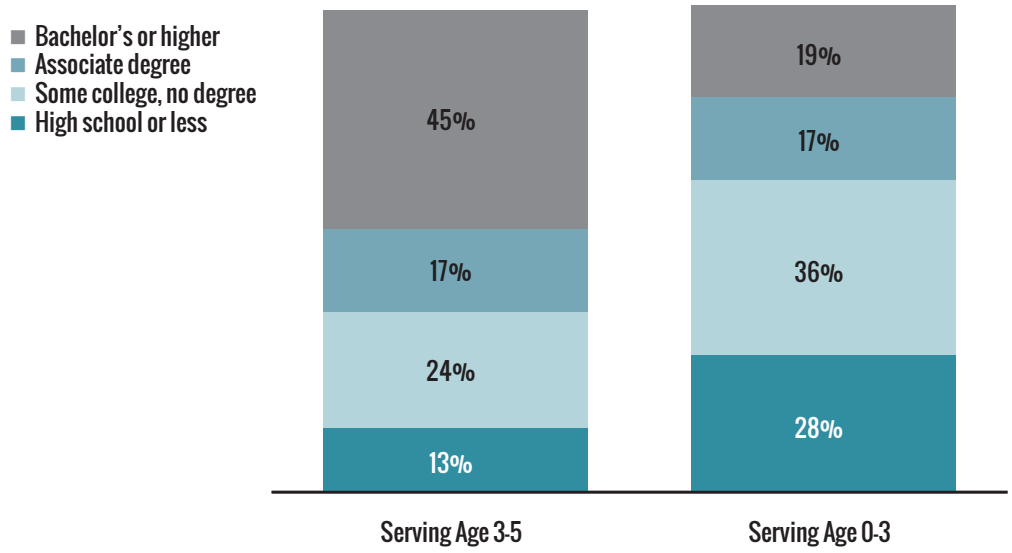
The quality of early care and education, and the outcomes it can be expected to produce, are critically influenced by the providers, including their educational background, training, and professional development, as well as their personal attributes and the attitudes with which they approach their work.[283] The typical teacher in the model high-quality programs like Abecedarian and High/Scope Perry had a college degree, and was compensated at a level commensurate with teachers in the public schools.[284] Nevertheless, current publicly financed programs typically fall short of these benchmarks with respect to both qualifications and compensation. Of 57 state-funded preschool programs that exist in 42 states and the District of Columbia, only 33 require teachers to have a Bachelor of Arts, 47 require specialized teacher training in pre-K, and 21 require assistant teachers to have a Child Development Associate credential (CDA) or its equivalent.[285] For Head Start and Early Head Start, all center-based classroom teachers must have at least a CDA or state-awarded equivalent certification, and as of 2013, at least half of all center-based Head Start and Early Head Start teachers must have an associate, bachelor's or advanced degree in Early Childhood Education, or a Bachelor of Arts or advanced degree in a related field along with preschool teaching experience.[286] More than half of states only require that licensed child care providers have at least a high school diploma.[287] Thirty-one states require a high school diploma or less for child care center lead teachers; 41 states require a high school diploma or less for regulated family child care providers.[288]

To be sure, the qualifications of the formal early care and education workforce typically exceed these standards. Among center-based teaching staff:

- Twenty-six (26) percent had a four-year degree, and 9 percent had a graduate or professional degree.[289]
- Around 1 in 5 center-based teachers and caregivers (22 percent) reported having a state teaching certification.[290]
- More than half of all center-based teachers and caregivers (53 percent) report having at least some college (including an associate degree or higher); almost 4 in 10 had postsecondary education specific to early childhood education (38.2 percent) or in a related field (17.8 percent).[291]
- Just under half have some kind of certification in ECE. Only 1 percent had less than a high school diploma.[292]
- Among Head Start programs, 71 percent of teachers had a bachelor's degree or higher in early childhood education or a related field.[293]

Within centers, the share of teachers with higher educational attainment varies by the age of the child served, as shown in Figure 20.

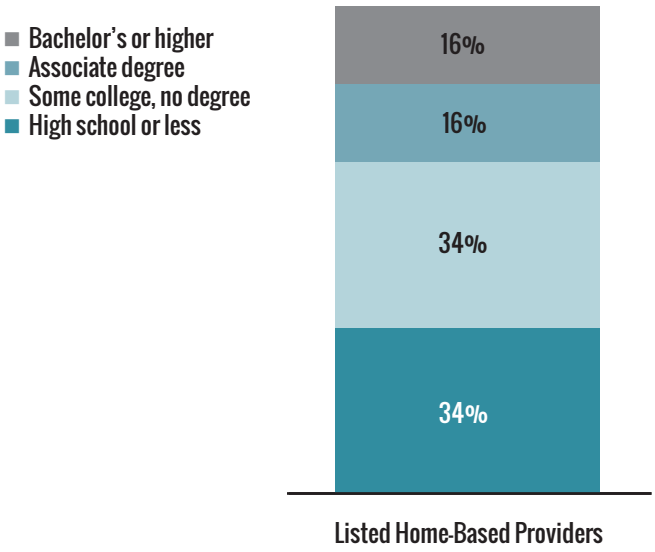
FIGURE 20. Educational Attainment of Center-Based Teachers, by Age of Target Children



Source: "Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)." NSECE Research Brief, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2013-38, October 2013. Available at https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

The educational attainment of home-based caregivers is generally lower than that of center-based teachers, with about 30 percent having an associate degree or higher. Figure 21 details the educational attainment for Regulated or Publicly-Listed home-based providers. Just over a third of all home-based providers have some postsecondary ECE-related training, and thirty-eight percent of listed home-based providers have some certification.[295] Only 5 percent of listed but 25 percent of unlisted providers had less than a high school diploma.[296]

FIGURE 21. Educational Attainment of Regulated and Publicly-Listed Home-Based Providers



Source: "Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)." NSECE Research Brief, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2013-38, October 2013. Available at https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

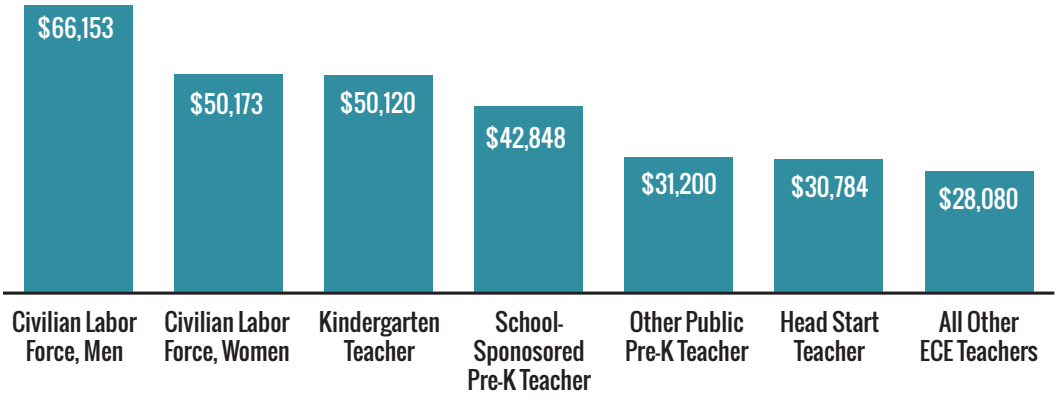
WAGES

For decades, researchers have identified the wages of ECE staff as among the most important predictors of the level of quality of care that children receive, with better-rated centers characterized by higher wages, staff with higher education and better training, lower child-to-teacher ratios and more positive work environments with lower staff turnover.[297] However, the lack of public funding has pitted the value of subsidies, and thus the resources available to pay providers, against the number of children able to be served. In privately-funded programs, parents' ability to pay imposes market-based constraints on the revenues available to finance staff salary and benefits. What has resulted are generally low wages across the sector that help drive staff turnover. Additionally, the fragmentation of funding and administration of care and education programs for very young children is reflected in—and drives—wage variations among teachers and caregivers that undermine the stability of the labor force, as described below.

Within the early care and education sector, wages are tied to educational level, but are much lower than earnings of comparably-educated workers. The highest-paid bachelor's level pre-K teachers are paid roughly 65 percent of the median earnings for men with bachelor's degrees in the labor force. Notably, with the exception of school-sponsored pre-K teachers, the median salary for early childhood teachers with a bachelor's degree or more in every other setting was actually lower than the median wage for males with only a high school degree.[298]

The economic penalties for teachers of very young children are stark. While there is relative salary parity among teachers throughout the K-12 system, they earn significantly more than their counterparts who teach very young children. Among those with bachelor's degrees, the highest paid pre-K teachers working in public school district-sponsored programs still earn only 85 percent of comparably-educated kindergarten teachers, with the rest of their colleagues in other settings paid only 56 to 62 percent of the median earnings of kindergarten teachers. See Figure 22.

FIGURE 22. Median Annual Full-Time Salary of Teachers with a Bachelor's Degree Across Care Settings Compared to All Civilian Labor Force, 2012



Sources: Based on analysis of "Table P-24: Educational Attainment--Full-Time, Year-Round Workers 25 Years Old and Over by Median Earnings and Sex: 1991 to 2014." U.S. Census Bureau, retrieved 3 November 2016. Available at https://www2.census.gov/programs-surveys/cps/tables/time-series/historical-income-people/p24.xls.

See also "Occupational Employment and Wages, May 2015: SOC 25-2012." Occupational Employment Statistics, Bureau of Labor Statistics, U.S. Department of Labor, May 2015. Available at http://www.bls.gov/oes/current/oes252012.htm.

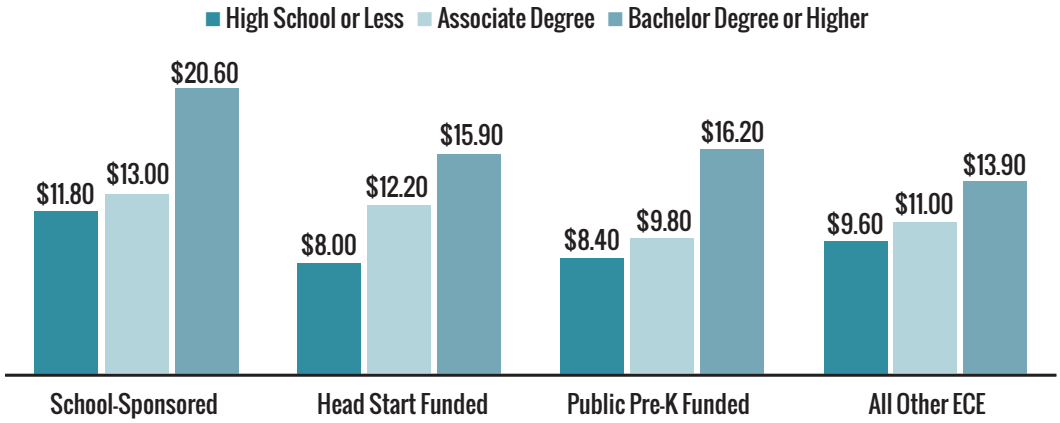
Adjusted for 2012 dollars using http://data.bls.gov/cgi-bin/cpicalc.pl.

See also "Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)." NSECE Research Brief, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2013-38, October 2013. Available at https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

Similar to ECE workers with bachelor's degrees, wages for the rest of the ECE workforce are relatively low, with variations among settings, and even within settings based on the age of the children served:

- In 2012, the overall median of center-based wages was $10.60 an hour, with a median wage for those teaching children ages 0-3 in center-based programs of $9.30, and 28 percent higher—$11.90 an hour—for those serving 3-5 year olds.[299]
- Across centers, the median wage for those with a high school degree or less ranged from a low of $8.00 to a high of $11.80, depending on whether the center received any public financing or sponsorship, and of what type.[300]
- For those with an associate degree, median hourly wages varied from $9.80 to $13.00.
- Median hourly wages for those with a bachelor's degree or higher ranged from $13.90 to $20.60.[301]
- Across all educational levels, median wages were greatest—from one-third to almost 50 percent higher—in public school-sponsored programs.[302]

FIGURE 23. Median Hourly Wages of Center-Based Teachers and Caregivers by Education and Setting, 2012

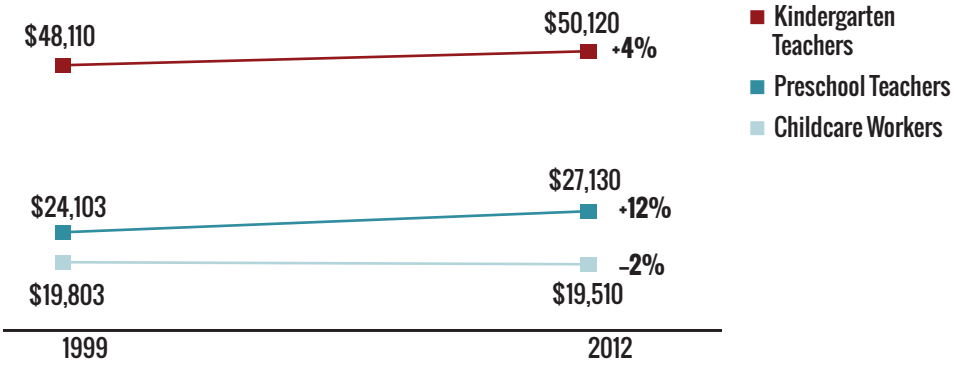


Source: "Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)." NSECE Research Brief, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2013-38, October 2013. Available at https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

Wages also vary by age of children served, with generally higher pay for teachers of children ages 3-5 than those serving infants and toddlers.[303] Depending on the type of care-based setting, the wage premium for academic advancement can be limited: with the exception of Head Start funded center-based programs, nationally the median hourly wages for ECE staff with associate degrees were only $1.20 to $1.40 higher than those with a high school degree or less.[304]

For child care workers, the impacts of low earnings are compounded by wage stagnation over time. More than half of both center-based and listed home-based providers have more than 13 years of experience.[305] Yet unlike most teachers in the K-12 system, child care workers don't benefit financially from extended tenure and commitment to the field. In fact, child care workers have lost ground over time especially compared to other teachers of young children, as shown in Figure 24.

FIGURE 24. Comparison of Median Income of Early Care Staff, by Occupation (2012 dollars)



Source: Occupational Employment Statistics, Occupational Employment and Wages, 1999 & 2012, 25-2012: Kindergarten Teachers, Except Special Education. Washington, DC: Bureau of Labor Statistics, U.S. Department of Labor. Available at http://www.bls.gov/oes/tables.htm.

See also "Occupational Employment Statistics, Occupational Employment and Wages, 1999 & 2012, 25-2011: Preschool Teachers, Except Special Education." Bureau of Labor Statistics, U.S. Department of Labor. Available at http://www.bls.gov/oes/tables.htm.

See also "Occupational Employment Statistics, Occupational Employment and Wages, 1999 & 2012, 39-9011: Childcare Workers." Bureau of Labor Statistics, U.S. Department of Labor. Available at http://www.bls.gov/oes/tables.htm.

THE COMPENSATION BENEFITS OF UNIONIZATION

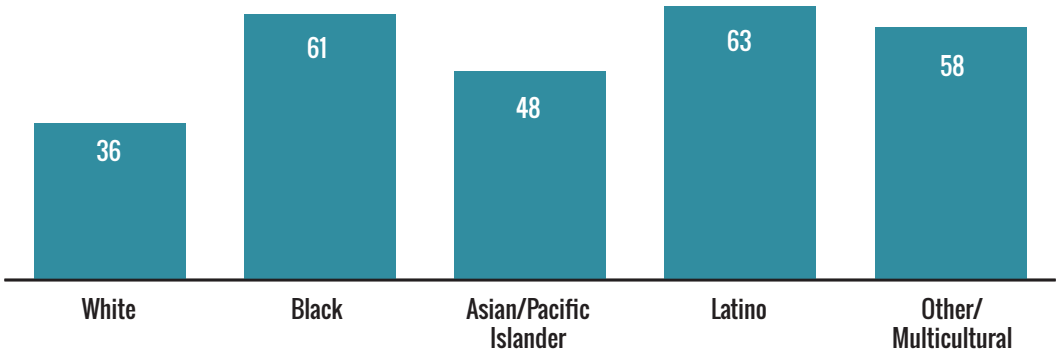
Union membership provides large and significant wage and benefit advantages among child care workers. The average hourly wage among unionized child care workers was $2.75 higher than their non-unionized counterparts, an increase of 24 percent. Union coverage also afforded greater access to benefits: 27.2 percent of unionized child care workers have health insurance and 32.3 percent have a retirement plan, compared to 15 percent and 10.7 percent coverages, respectively, among non-unionized child care workers.[308]

As a result, in 32 states, the median annual earnings for a child care worker is below poverty for a family of three.[306] In all remaining states, the median annual earnings for a child care worker is below 150 percent of the poverty level.[307]

Low Wages Drive Economic Insecurity for ECE Workers

The low wages across the ECE sector create financial insecurity for workers and exact public costs by increasing those workers' reliance on public assistance. Early care and education staff in California who were surveyed about their economic security expressed concern about making ends meet, both immediately and in the future. Almost three-quarters (73 percent) worried about having enough money to pay their monthly bills, with just under half (48 percent) concerned about whether their families will have enough food.[309] Reflective of the genuine challenge posed by supporting their families on insufficient earnings, 35 percent of surveyed child care staff reported having accessed some form of public support within the last three years, including almost two-thirds of those with minor children.[310] In a broader analysis of the utilization of four public programs—the Federal Earned Income Tax Credit (EITC), Medicaid and the Children's Health Insurance Program (CHIP), the Supplemental Nutritional Assistance Program (SNAP), and TANF—by child care workers across four industries nationally,[311] nearly one-half (46 percent) participated in at least one of the examined programs, at an estimated annual public cost of $2.4 billion.[312] Almost 1 in 4 had family income below 200 percent of the federal poverty level, and among them 8 out of 10 participated in at least one public support program. [313] While use of public support was higher for workers with lower levels of education, more than one quarter (29 percent) of families where the child care worker had at least a bachelor's degree relied on at least one public support program, a rate nearly three times higher than receipt among other American families with an equivalent education level.[314] Receipt of public assistance is also higher among minority child care workers, as shown in Figure 25.

FIGURE 25. Childcare Worker Usage of One or More Public Programs, by Worker Race/Ethnicity



Source: See Figure 5.3, Whitebook, Marcy, Deborah Phillips, and Carollee Howes. "Worthy Work, Still Unlivable Wages: The Early Childhood Workforce 25 Years After the National Child Care Staffing Study." Center for the Study of Child Care Employment, Institute for Labor Research, University of California at Berkeley, 2014. Available at http://www.irle.berkeley.edu/cscce/wp-content/uploads/2014/11/ReportFINAL.pdf.

Across settings, early care and education is low wage work. Unlike many other low wage occupations, though, it predominantly provides full-time employment for those engaged in formal care. Around 3 of 4 (74 percent) center-based staff are full-time workers, working a median of 39.2 hours each week, with 11 percent reporting working 40-50 hours per week.[315] However, at least in part, the unstable financing structure that is predicated on children's enrollment and attendance still provokes workers' economic worries; forty percent expressed concern about having their hours reduced, and more than half were concerned about being sent home without pay because of low attendance or other closures.[316] With limited ability to save given their low earnings and facing the reality of wage stagnation, 8 in 10 child care workers worried about whether they would have enough savings for retirement.[317] Relatively lower levels of worry were expressed by those working in higher-quality rated centers, suggesting that somewhat better pay and higher qualifications associated with their centers' ratings also provides greater economic security for staff who work there.

Low Pay and Wage Stratification Across ECE Settings Promote Turnover

Historically, annual turnover rates within the early care and education sector have been around 30 percent, with compensation a key driver of staff exits.[318] Wage stratification may lead even those who want to remain in the ECE field to move to relatively higher paying positions in public school-sponsored programs, for example, especially after they have obtained any necessary advanced education or credentials. Analysis shows that relatively high annual teacher and caregiver turnover rates at center-based programs are focused within a small share of programs, with around 25 percent of centers reporting an annual departure rate in excess of 20 percent, but almost half (46.2) reporting zero turnover.[319] High turnover rates within centers make it difficult for programs to initiate, employ and maintain improvements, and are associated with low program quality and negative outcomes for children.[320]

The well-being, stability, and quality of the early care and education workforce have been undermined by the relatively low value of public subsidies for child care and the compensation stratification that has resulted from having various funding streams. Some programs have been created to foster labor force participation, while others have been created to foster children's development, and these distinctions have driven varying standards around program design, payment levels, staff qualifications and training, and regulatory compliance. Even programs targeted to disadvantaged children are too often not of high quality.[321] These differences have been magnified by variation in implementation across states, as state administrators have discretion in implementing some federal programs, and some state level investments carry their own set of requirements. As a result, while there is consensus that better child outcomes result from higher-quality care, what constitutes a "high-quality program" across and within states is less well prescribed.[322]

The limited public funding of early care and education means that the vast majority of care is provided by programs outside of government standards and, if paid, is supported largely if not solely by parent fees. While public-school sponsored and Head Start programs are considered to be at the forefront of measures to improve teacher qualifications and program quality, they are still not considered to provide uniformly high-quality care, and remain only one limited component of a fragmented system that parents and early care educators must navigate on behalf of young children.

Long-Term Services and Supports

Americans face an intense and urgent need for caregiving for their young children before they enter school and again as family members age. These needs extend across the life span for families of people with disabilities who cannot care for themselves without assistance. As with early care for young children, long-term care for people with disabilities and older adults is also predominantly provided by family members, often at significant physical, emotional and financial costs. With the estimated number of people who will need some type of long-term care expected to almost double by 2050 (from 2000) due to changing demographics—most of whom will want to receive long-term support in the community, rather than in institutions—families will struggle, especially financially, to meet these caregiving needs on their own. Strengthening and expanding the public provision of formal long-term services can provide critical and cost-effective support to families while also creating new job opportunities, but only if public investments are structured to produce good jobs that will attract and retain a workforce that can provide high-quality care.

The Need for Long-Term Care

For decades, demographers and policymakers in the United States have anticipated a burgeoning crisis: the provision of long-term care for individuals when illness, trauma, or a chronic condition limits their ability to care for themselves without assistance. Determining the prevalence of long-term care needs is challenging, because surveys ask about and define functional limitations and their impact and duration differently, but estimates suggest that over 12 million Americans currently need long-term assistance with daily living.[323] As with early care and education, support is provided through both formal and informal arrangements that encompass a wide-range of activities; services are personalized to meet individual needs, which may vary over time and cover anything from short episodes following an injury or illness to more extensive care due to a chronic condition. Generally, although no formal or consistent definition yet exists,[324] "long-term services and supports" (LTSS) includes help with "activities of daily living" (ADLs) involving personal care and hygiene, such as getting into and out of bed,

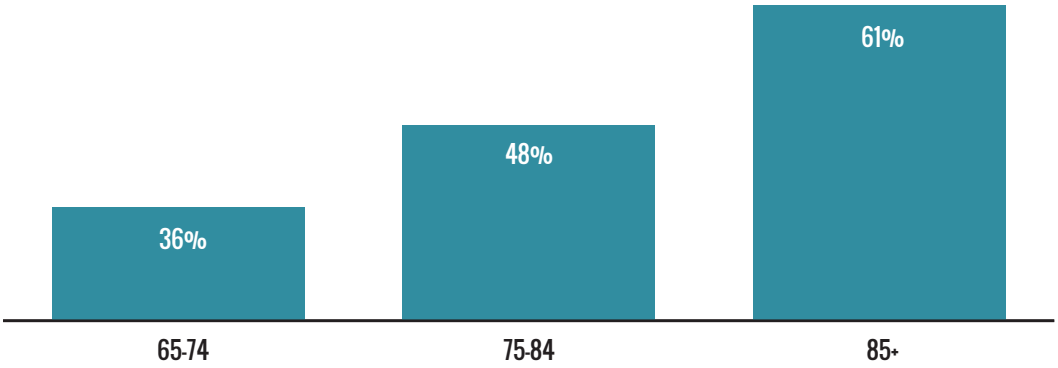
walking, dressing, eating, bathing and toileting, among others. LTSS also includes assistance with "instrumental activities of daily living" (IADLS)[325] like managing finances or household chores. Early care and education requires meeting children's cognitive, physical, and social needs; similarly, long-term care entails managing a range of personal health and social needs to help maintain individuals' daily lives and prevent deterioration that might lead to the need for more intensive—and expensive—care.

The need for long-term care varies with age, but exists across the life span. Approximately half of those currently in need of LTSS support are 65 years or older, while another 47 percent are adults between the ages of 18-64, and 3 percent are children under the age of 18.[326] Generally, individuals' conditions that necessitate care, their intensity, and the ways in which they may be met, differ based on the age at onset. Functional limitations in children under the age of 18 are typically present at birth or arise in infancy. Limitations are generally evenly split between physical and intellectual or developmental disabilities, along with mental health issues, that may be substantial and long-lasting.[327] The predominant conditions among adults ages 18-44 include intellectual disabilities, paralysis and other nervous system disorders, and mental health issues, while people whose disabilities arise when they are between the ages of 45 and 64 primarily experience physical disabilities and mental health issues.[328]

As adults age, it becomes increasingly likely that a physical or cognitive impairment will limit their ability to function independently; around half of physical limitations necessitating LTSS in older adults arise after the age of 65, along with impairments caused by dementia and stroke.[329] Despite these differences in impairment across the life span, the limitations that they produce require similar long-term functional support.

Given the urgency posed by demographic changes facing the U.S. in the coming decades as the Baby Boom generation ages, this paper particularly examines the issues presented by the LTSS needs of older adults. Overall, as of 2010, an estimated 38.6 percent of those ages 65 and over had one or more disabilities that affected their functioning.[330] The proportion affected rises sharply with age as shown in the chart below; among the 85 and older population, the incidence of disability grew to 72.6 percent.[331] According to new estimates, 26 percent of Medicare participants over the age of 65—9.8 million people, including 1.1 million residing in nursing homes—received help with either household tasks or self-care due to functional limitations in 2011.[332]

FIGURE 26. Prevalence of At Least One Disability, by Age (2010)



Source: West, Loraine A., et al. "65+ in the United States: 2010." Special Studies, Current Population Reports, U.S. Census Bureau, P23-212, June 2014. Available at http://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf. The analysis was based on data from the 2010 American Community Survey.

Depending on the type and severity of their limitations and the availability of support, those who need LTSS may either continue to live in the community or reside in institutional care. The overwhelming majority of elderly people who receive LTSS—80 percent—live at home, and another 2 percent live in assisted living residences that provide health and/or homemaking supports; the remaining 18 percent live in institutional settings.[333] Among older adults living in the community, only 18 percent of those ages 65-74 report difficulty with functional limitations. However, the prevalence of limitations almost triples among those 85 or older, with 54 percent report experiencing some kind of functional limitation, and increased prevalence of multiple challenges.[334] While less extensive than functional impairments, cognitive limitations are also more commonly reported among those over the age of 85.[335]

Among the elderly living in the community, functional limitations are significantly more prevalent among those with lower levels of educational attainment, as well as among the non-white, non-Hispanic elderly. On average, for example, adults over the age of 65 living in the community who lacked a high school degree were more than twice as likely to report difficulty performing three or more ADLs.[336] A quarter (25 percent) of non-Hispanic whites ages 65 or older in the community reported some functional limitation compared to 35 percent of non-Hispanic non-whites, and 34 percent of Hispanic older adults, with the most marked differences by race, even controlling for educational attainment, in the number who reported three or more impairments.[337]

Functional limitations alone do not necessitate personal assistance with daily activities or tasks; in some cases, such limitations can be managed with lifestyle adaptations or the use of special technology or equipment. However, as challenges of daily living multiply, elders coping with them are more likely to rely on some form of personal assistance. While only 45 percent of elderly people who reported difficulty performing one or two ADLs receive assistance, 85 percent of those with three or more reported impairments required support.[338] And with age, the amount of care that individuals need also grows; elderly adults with three or more impairments receive an average of nine hours of assistance each day, increasing to eleven hours per day among those ages 85 or older.[339]

Families' Provision of Informal Long-Term Care

MOST LONG-TERM CARE IS PROVIDED INFORMALLY BY UNPAID CAREGIVERS

Of the 82 percent of adults receiving LTSS in the community, an estimated 68 percent receive support solely from an unpaid friend or family member.[340] Again, estimates of the size of the caregiving population vary widely, particularly depending on whether studies survey those in need of LTSS themselves, those who they identify as their caregivers, or the broader population about their caregiving responsibilities. For example, a survey of Medicare participants over the age of 65 estimates that 17.7 million individuals—about 7.7 percent of the population ages 20 and older—provided care for an older adult living outside of a nursing home in 2011,[341] while estimates drawn from inquiries of adults regarding their caregiving responsibilities are generally much higher. According to a 2014 survey, for instance, an estimated 39.8 million Americans had provided care to a family member or friend over the age of 18 within the last 12 months, with approximately 34.2 million of them (almost 86 percent) providing unpaid care to an adult age 50 or older.[342]

Caregiving estimates also reflect the transient nature of caregiving itself. In a survey of Americans age 40 and older, 19 percent reported that they were currently providing ongoing living assistance on a regular basis to a friend of family member, while 32 percent reported having provided such care in the past.[343] And concern about future caregiving responsibilities is similarly pervasive. More than 1 in 4 adults over the age of 40 (27 percent) thought it extremely or very likely that a friend or family member would require long-term assistance within the next five years. Among those who thought it at least somewhat likely that a close friend or family member would need support, almost a third projected that they were likely to be the ones to provide that care.[344]

The size of the caregiving population also depends, of course, on the type of care that is examined, and whether analysis considers primary caregivers alone or all those who may have provided assistance to a family member or friend. The average size of these informal networks for older adults living in the community has been estimated at 2.3 people, including spouses or partners and children, but also commonly granddaughters, daughters-in-law, and other non-relatives.[345] Despite varying in their estimates of the size of the caregiving population, surveys show consistently that more than 6 in 10 caregivers are women, predominantly spouses or middle-aged daughters.[346]

6 in 10 unpaid family caregivers said that caregiving responsibilities had negatively impacted their employment

However, family caregiving crosses age, gender, racial, and socioeconomic lines, with the demographics of caregivers roughly reflecting the characteristics of the overall U.S. population. Among family caregivers of Medicare participants age 65 and older living outside of nursing homes in 2011, for example, more than 70 percent were white, while 12.6 percent were African-American and 11.6 percent were Hispanic. This is generally consistent with their representation in the overall population, but caregivers are more likely to be middle-aged or older.[347]

Other demographic markers of the caregiving population highlight the additional challenges that caregiving demands may impose on families depending on their personal circumstances. According to a national profile of family caregivers, almost 3 in 10 (28 percent) also have a child under the age of 18 living with them,[348] compounding their caregiving obligations and the social, health and financial stresses they may impose.

The type and intensity of care needed obviously varies, but on average, caregivers report spending around 18 hours a week providing assistance to a friend or family member, with 55 percent of caregivers feeling overwhelmed by the amount of care needed.[349] Of those providing assistance with any ADLs, 75 percent of caregivers provide more than 21 hours of care each week;[350] 1 in 4 provides care for more than 41 hours per week.[351] Nineteen percent of caregivers reported a high degree of physical strain from their caregiving duties, particularly those who had been

providing care for a year or longer, those caring for someone with a long-term physical condition, and caregivers who themselves were ages 65 or older.[352] Caregivers of adults over 50 are also more likely to provide assistance getting a loved one in and out of bed, to the bathroom, or with incontinence, which caregivers rate as the most difficult ADLs to facilitate.[353] Almost half (46 percent) of family caregivers report performing medical/nursing tasks—managing medications, undertaking wound care, preparing special food, using monitors, and operating specialized medical equipment—as part of their caregiving duties. These are responsibilities they found stressful, especially without training, but critical to helping their family member remain at home.[354]

PROVIDING INFORMAL LONG-TERM CARE EXACTS FINANCIAL AND HEALTH COSTS TO CAREGIVERS AND THE ECONOMY

These informal but critical caregiving responsibilities are typically juggled with the demands of employment and family life. Sixty percent of family caregivers cared for an adult while working full or part-time, with 22 percent providing 21 or more hours a week on top of their work hours.[355] Of those who were working, 40 percent were 50 or older.[356] Self-employed workers are over-represented among working caregivers, 17 percent of whom own their own business or report other self-employment, and they are more likely than other workers to report reducing their work hours or retiring early in the face of their caregiving responsibilities.[357] Since only slightly more than half of non-self-employed working caregivers report having paid sick leave benefits or flexible work arrangements through their employers, family members who are self-employed may naturally assume the responsibilities of caregiving, or workers may shift to self-employment to accommodate the demands of caregiving.[358]

Among those who are employed, two-thirds of caregivers experience care-related intrusions, such as phone calls and emails, while at work.[359] Not surprisingly, then, 6 in 10 caregivers reported that their caregiving responsibilities had negatively impacted their employment, including necessitating a reduction in their work hours or a leave of absence, or receiving a performance or attendance-related notice from their employer.[360]

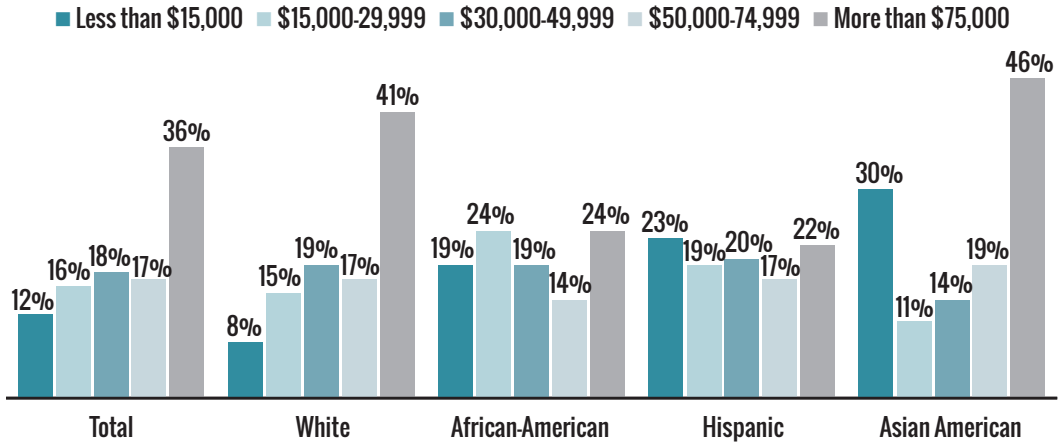
Caregivers working fewer than 30 hours a week were more likely to report having reduced their work responsibilities to accommodate the demands of caregiving.[361] In addition to these negative impacts on their employment, caregiving responsibilities imposed opportunity costs for caregivers, 8 percent of whom reported either turning down a promotion (5 percent) or giving up job benefits (3 percent) as a result of their caregiving.[362]

For many caregivers, the impact on their employment is more drastic. Twenty-two percent of retirees report having left their jobs earlier than planned to care for a spouse or family member.[363] Working caregivers who left their jobs reported doing so to have more time to care for their family member, or because their job did not provide the flexibility to meet their caregiving demands.[364] In a survey of adults ages 45-70 who had suffered a period of unemployment within the last five years, 26 percent had cared for a friend or family member during their unemployment, with 40 percent of them reporting that their caregiving responsibilities had affected their ability to pursue or accept employment, and 25 percent saying that they had delayed looking for work in order to provide care.[365]

Balancing these competing demands is stressful, and care responsibilities impose significant economic and other burdens on caregivers, especially on spouses and adult children. Caregivers assume both direct and indirect financial costs associated with care, contributing financial

support as well as foregoing wages and other employment benefits. Almost 1 in 3 workers (29 percent) report providing direct financial support to a relative or friend related to their care needs[366] and almost half (46 percent) of family caregivers report spending more than $5,000 each year in caregiving costs.[367] For many of them with limited earnings themselves—46 percent of all caregivers have annual household income below $50,000—these costs pose a significant financial strain.[368] As shown in Figure 27, these financial burdens are especially difficult for African American and Hispanic caregivers to afford.

FIGURE 27. Income of Family/Friend Caregivers, by Race



Source: "2015 Report: Caregiving in the U.S." National Alliance for Caregiving and AARP Public Policy Institute, June 2015. Available at http://www.aarp.org/content/dam/aarp/ppi/2015/caregiving-in-the-united-states-2015-report-revised.pdf.

Caregiving affects the labor force participation, labor supply, and income and assets of caregivers differently depending on the extent of care needed and who is providing it, but these impacts are generally negative and potentially long lasting. While on average, children caring for a parent or in-law are initially financially better off compared to noncaregivers, over time caregiving children or children-in-law experience less growth in their assets and are more likely to fall into poverty than those who do not engage in parental caregiving.[369]

Spousal caregivers, in contrast, are more likely to be poor at the beginning of their caregiving, less likely to own their homes and have on average $74,000 less net total assets than noncaregivers.[370] And the financial impact of their caregiving is more severe: a wave of intensive spousal care[371] has been shown to lower wealth by $9,200, and is associated with a 13.6 percent reduction in the growth of wealth and a 5 percent increase in the likelihood of falling into poverty.[372] On average, family members over the age of 50 who leave the workforce or cut back on their hours to engage in caregiving lose an estimated $303,880 in income and benefits over their lifetime;[373] for women, the estimated financial impact was even higher, at $324,044.[374]

These financial costs extend beyond families to our economy. Accounting for the expenses associated with replacing employees, absenteeism, workday distractions, supervisory time, and reductions in hours from full-time to part-time, the average annual cost to employers per full-time working caregiver is estimated at $2,110.[375] The aggregate cost to U.S. employers attributable to full-time employees with family caregiving responsibilities has been estimated at $17.1 to $33.6 billion (2006 dollars) in lost productivity. The costs are due primarily to absenteeism ($5.1 billion), shifts from full-time to part-time work ($4.8 billion), replacing employees ($6.6 billion), and workday interruptions ($6.3 billion).[376]

For those with significant caregiving responsibilities, the costs are not just economic. Almost 9 in 10 middle-aged, middle income caregivers (88 percent) reported that caring for a family member was harder than they had expected, in terms of both time needed and emotional strength required.[377] Four of 10 of them rate the provision of care as highly stressful[378] with greater impact on those providing a longer duration of care or caring for a close relative.[379] An analysis of the daily well-being of retirees and non-retirees found that engaging in adult caregiving significantly increased the pain and stress experienced by those caring for a household member, and increased tiredness and sadness among those caring for someone outside their household.[380] While retirees who are caregivers reported lower scores of tiredness, sadness, and stress compared to non-retiree caregivers over the age of 50, caregiving nevertheless negatively affected retirees' well-being.[381] The economic, emotional, and time demands of caregiving generally leaves family caregivers exhausted, and leaves them too little time for themselves.[382]

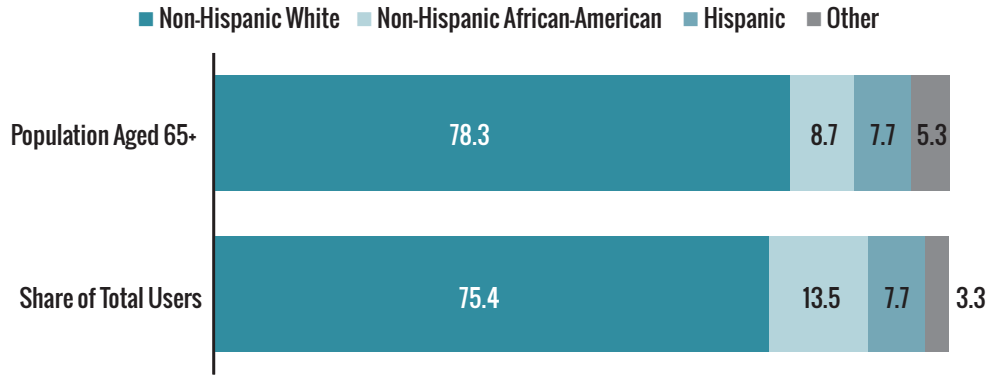
The accumulation of these impacts regrettably ends up affecting caregivers' health, as well; workers providing eldercare were more likely to report fair or poor health in general and a higher incidence of chronic disease.[383] They were also more likely than their colleagues to report missed days of work as a result. One in 10 caregivers have missed at least one day of work within the previous two weeks because of health issues, especially among younger caregiving employees ages 18-39.[384]

The added cost to the economy is noteworthy as well. The average additional health cost to employers because of the poorer health, medical expenses and associated lost productivity of employees due to caregiving for older relatives has been estimated at 8 percent. Extrapolated to the business sector overall, the health care expenses specifically related to eldercare responsibilities is estimated to cost U.S. employers $13.4 billion per year.[385]

SECURING PAID FORMAL LONG-TERM CARE

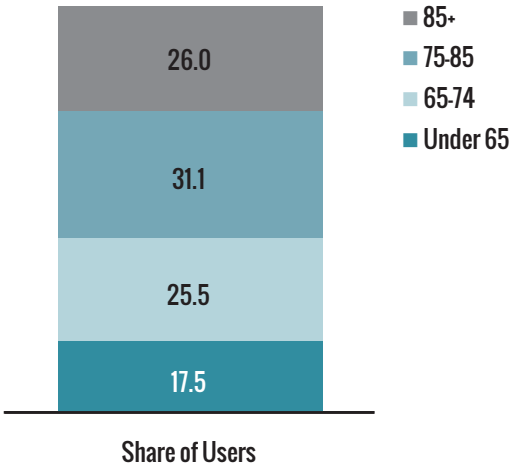
Given the challenges facing the networks of family and friends who support the roughly 8.2 million older adults living outside nursing homes who report receiving assistance,[386] 3 in 10 of those supplement the informal care they receive with paid help.[387] One of the primary ways older adults receive paid long-term care at home is through home health agencies. Figures 28 and 29 depict the characteristics of home health agency users by race and age.

FIGURE 28. Share of Home Health Agency Users, by Race (2013 & 2014)



Source: Harris-Kojetin, Lauren, et al. "Long-term Care Providers and Services Users in the United States: Data from the National Study of Long-Term Care Providers, 2013-2014." National Center for Health Statistics, Centers for Disease Control and Prevention, *Vital and Health Statistics,* 3(38), February 2016. Available at http://www.cdc.gov/nchs/data/series/sr_03/sr03_038.pdf.

FIGURE 29. Home Health Agency Users, By Age (2013 & 2014)



Source: Harris-Kojetin, Lauren, et al. "Long-term Care Providers and Services Users in the United States: Data from the National Study of Long-Term Care Providers, 2013-2014." National Center for Health Statistics, Centers for Disease Control and Prevention, *Vital and Health Statistics,* 3(38), February 2016. Available at http://www.cdc.gov/nchs/data/series/sr_03/sr03_038.pdf.

Home health care plays a critical role in preventing unnecessary and costly hospitalizations or other institutionalization[388] of older adults and people with disabilities. It preserves their independence, and supports and supplements the caregiving provided by family members and other informal caregivers. The next section of this report turns to the direct care workers who provide this invaluable assistance to older adults, people with disabilities, and their family members.

THE PAID LTSS SECTOR WORKFORCE: HOME AND COMMUNITY-BASED DIRECT CARE WORKERS

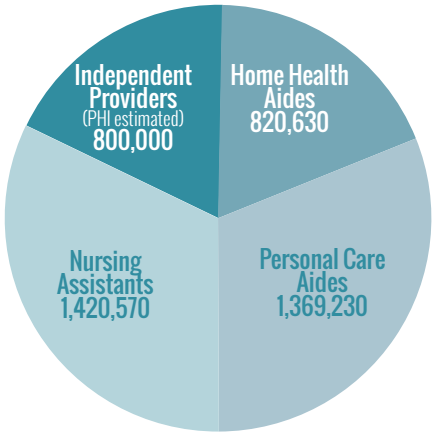
The major segments of paid, regulated long-term care services in the United States include nursing homes, adult day services centers, hospices, assisted living and other residential care communities, and home health agencies, together comprising approximately 67,000 providers across the country.[389, 390] Additionally, over a million Medicaid beneficiaries participate in consumer-directed programs that promote personal choice and control over service delivery in a variety of ways;[391] for example, participants may hire their home care worker(s) without the involvement of an agency.

In 2013, over 4.943 million people—significantly more than half of the roughly 9 million people receiving some type of paid long-term care—were discharged from home health agency care, having completed an episode of care.[392] More than 8 in 10 of them (82.6 percent) were ages 65 or older, and 62.1 percent were women.[393] Roughly three-quarters (75.4 percent) were non-Hispanic white, 13.5 percent were non-Hispanic black, and 5 percent were Hispanic.[394]

The LTSS caregiving workforce is a varied one, including physicians, registered nurses, licensed practical and vocational nurses, social workers, and occupational and physical therapists, as well as direct care workers. Together, they represent 30 percent of the health care workforce in the United States; nursing and residential care facilities make up 21 percent of all health care employment, while home health care services comprise another 9 percent.[395]

There are an estimated 4.4 million direct care workers in the U.S.[396, 397] and they provide between 70 and 80 percent of paid long-term care assistance.[398] Direct care work in nursing and assisted living facilities is performed by certified nursing aides and orderlies, while in community-based settings it is carried out by home health aides and personal care attendants who are referred to collectively as home care workers. Personal care attendants provide assistance with ADLs and offer social support, while home health aides may perform additional paramedical tasks. By 2020, home and community-based direct care workers are expected to outnumber workers in facilities by more than 2 to 1.[399]

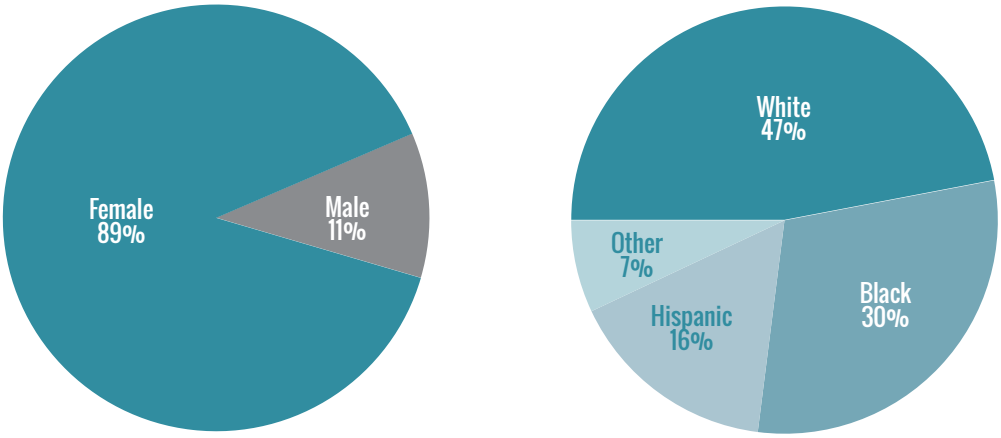
FIGURE 30. The Direct Care Workforce (2015)



Sources: Bureau of Labor Statistics, Occupational Employment Statistics, May 2015. See also Paraprofessional Health Institute, Direct Care Workers at a Glance.

Almost 9 in 10 direct care workers are female, with an average age of 42.[400] Almost half (47 percent) are white, 30 percent are African American, and another 16 percent are Hispanic.[401] While 45 percent of direct care workers have at least some college experience or more, 55 percent have a high school degree or less.[402]

FIGURE 31. Demographics of Direct Care Workers (2015)



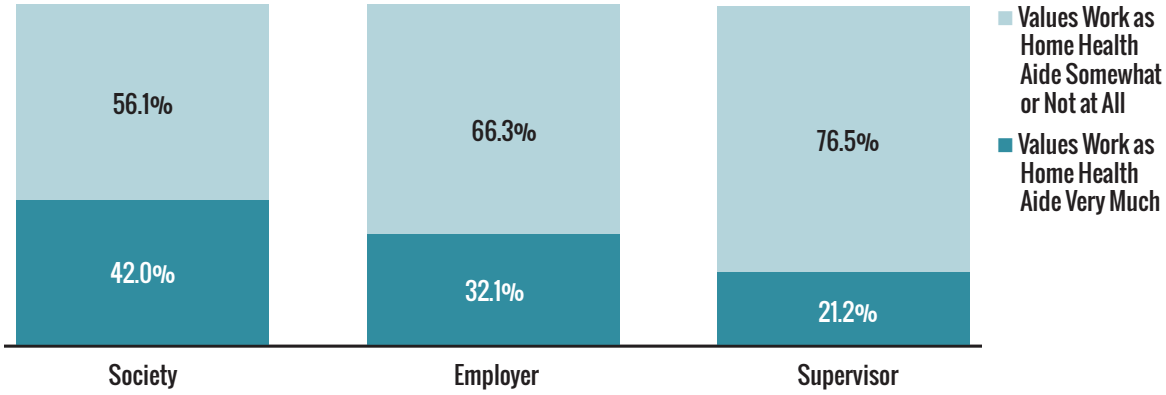
Source: "Direct Care Workers at a Glance." Fact Sheet, Paraprofessional Health Institute, 2010. Available at http://phinational.org/wp-content/uploads/2011/02/PHI-Direct-Care@Glance-2.11.pdf.

Direct care occupations are characterized by low wages, limited or no benefits, unstable scheduling, and difficult working conditions, all of which drive high turnover that impacts the cost and quality of care.

Wages

Despite their importance in helping older Americans continue to live in their communities and providing critical support to family caregivers, the value of direct care workers' service is not reflected in their wages and benefits. Home health care work in particular is characterized by low wages, minimal benefits, and unpredictable and irregular work schedules, and just as for informal caregivers, exposes workers to adverse physical and emotional stress. While more than 96 percent of home health aides surveyed felt their work was very important, significantly fewer felt very valued by their supervisors (76.5 percent), employers (66.3 percent), and society as a whole (56.1 percent).[403]

FIGURE 32. Home Health Aides' Perceptions of the Value of Their Work, United States (2007)



Source: Bercovitz, Anita, et al. "An Overview of Home Health Aides: United States, 2007." National Center for Health Statistics, Centers for Disease Control and Prevention, National Health Statistics Reports No.34, May 2011. Available at http://www.cdc.gov/nchs/data/nhsr/nhsr034.pdf.

The devaluation of home care work is most saliently reflected in occupational wages. The median hourly wage was $10.09 for personal care aides and $10.54 for home health aides in 2015, well below the national median wage of $17.40, with median annual wages at $20,980 and $21,920 respectively.[404, 405] In all 50 states, the median wage of home care workers is almost half the living wage for a two-person household.[406] Even though many agencies struggle to fill the demand for workers, home health care workers' wages are actually falling. When adjusted for inflation, wages of home care workers have dropped nearly six percent since 2004;[407] analysis of wage trends for the decade between 2004 and 2014 showed that wages for personal care aides had decreased in 40 states and the District of Columbia, and for home health aides had decreased in 42 states and the District of Columbia.[408] In all states for both categories of workers, wages fall below 200 percent of the federal poverty level.[409] As the Institute of Medicine (IOM) concluded in its 2008 report, direct care wage levels do not "adequately support the recruitment and retention of the workforce."[410]

Additionally, until a 2015 rule change by the Department of Labor—upheld in the face of legal challenges by the home care industry[411]—home care workers were not afforded minimum wage and overtime protections under federal law. As in other low wage occupations, home care workers in states and localities that nominally provided such coverage commonly experience wage and hour violations. A 2008 cross-sectoral survey of low wage workers in Chicago, Los Angeles, and New York found that almost 83 percent of home health care workers had not been paid requisite overtime wages under state law, and 90.4 percent had been subject to an "off the clock" violation, having been unpaid for time they worked either before or after their formal shift.[412]

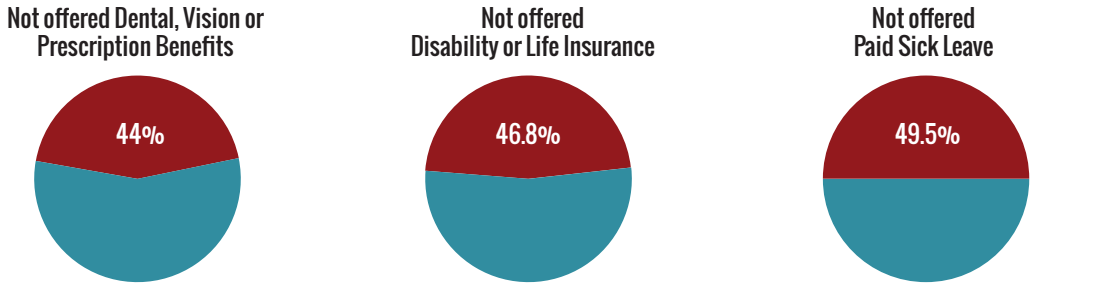
Benefits

Home health care workers have traditionally lacked access to health insurance and other employment benefits, similar to many other low wage occupations largely performed by a part-time workforce. As of 2013[413] almost 900,000 direct care workers in the United States were uninsured.[414] While the 2010 passage and subsequent implementation of the Patient Protection and Affordable Care Act (ACA)[415] has dramatically improved the number of direct care workers eligible for health care coverage, an estimated 400,000 remain without health insurance in states that have opted not to expand Medicaid eligibility under the ACA.[416] This coverage gap has a greater impact on direct-care workers of color, who are disproportionately represented among those earning less than the Medicaid-expansion eligibility thresholds.[417]

Low wages are likely to make it difficult for home care workers to afford insurance premiums, copayments, and deductibles where they are offered coverage through their employer and are not eligible for Medicaid or subsidies. In a pre-ACA survey of agency-based home care workers, two-thirds of those with annual income below $20,000 were offered health insurance coverage through their employer, but only 18 percent enrolled in their employer's plan, compared to almost half of those with annual incomes between $20,000 and $29,000.[418] Almost one-third of the lowest income aides were not enrolled in any health insurance plan.[419]

This privation extends to other benefits, as well. In a survey of agency-employed home health aides, 44 percent were not offered dental, vision, or drug benefits, 46.8 percent were not offered disability or life insurance, and just under half were not provided with paid holidays or paid sick leave.[420]

FIGURE 33. Share of Home Health Aides Lacking Employment Benefits

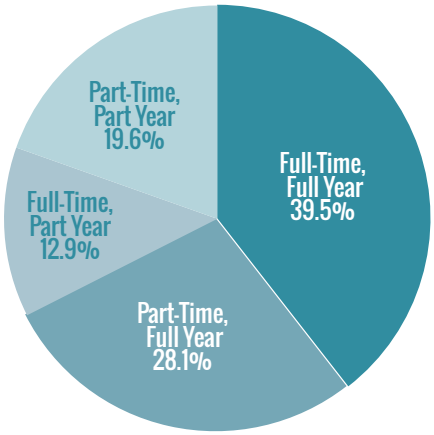


Source: Bercovitz, Anita, et al. "An Overview of Home Health Aides: United States, 2007." National Center for Health Statistics, Centers for Disease Control and Prevention, National Health Statistics Reports No.34, May 2011. Available at http://www.cdc.gov/nchs/data/nhsr/nhsr034.pdf.

Workforce Conditions

The challenge of making ends meet for home care workers paid low hourly wages is compounded by variable scheduling that fails to guarantee sufficient and consistent work hours. Individuals' care needs differ and can vary over time; some clients may need only part-time care, and scheduling to assist multiple clients can be challenging, especially taking into consideration travel time between residences. Additionally, even fixed or stable schedules can be disrupted if a client suffers a health crisis that necessitates a hospital or other institutional stay. Nearly half of home care workers are not offered full-time or consistent work by their employers[421] and even though home care workers may be employed by more than one agency, only 40 percent of home care workers work full-time time, year-round.[422]

FIGURE 34. Home Care Workers' Employment



Source: "Paying the Price: How Poverty Wages Undermine Home Care in America." Paraprofessional Health Institute, February 2015. Available at http://phinational.org/sites/phinational.org/files/research-report/paying-the-price.pdf.

Although on average, home care aides work 34 hours per week,[423] more than 1 in 4 home health aides (28.9 percent) working in agencies reported that they would prefer to work more hours.[424] Given the combination of low wages and involuntary part-time work, the median annual earnings of all direct care workers is $16,800, with median annual earnings slightly higher—at $19,000—for nursing, psychiatric and home health aides, but only $12,300 for personal and home care aides.[425] As a result, 16 percent of direct care workers[426]—and 1 in 4 home care workers[427]—have family income below the federal poverty line. Over half (56 percent) of all home care workers live in households with incomes below 200 percent of the federal poverty level;[428] consequently, 48 percent rely on some form of public assistance, including 21 percent who receive SNAP (formerly food stamps).[429]

Several factors can make home health care work stressful. Client staffing needs can be unpredictable and undermine steady employment; working in a home-based setting can cause isolation; and the work requires traveling to and assimilating into new homes on a regular basis.[430] Compounding these emotional stressors is the misperception that home care duties are largely unskilled work. This is driven in part by the fact that much of LTSS is performed informally by family members, and in part because of the "everyday" nature of the functional limitations for which home care workers provide.

Home care work often involves assistance with physical needs—such as helping a client get up out of bed, use the toilet, or take a bath—that requires physical strength and stamina and that singularly and over time can lead to injury. In 2010, home health aides experienced a rate of serious on-the-job injuries resulting in missed work that was twice as high as that facing the overall workforce.[431] More than 1 in 10 (11.5 percent) agency-based home health aides reported having had at least one work-related injury in the previous 12 months, with back injuries and other strains or pulled muscles the most common types of injuries suffered.[432]

Taken together, the risk of work-related injuries, lack of health insurance, and the fact that home care workers are often misclassified as independent contractors without workers' compensation benefits results in serious occupational risk that makes home care worker retention and recruitment difficult.

Turnover

Predictably then, the combination of low wages, minimal benefits, and environmental stress affects home care workers' tenure. Among agency-based home health aides providing home health or hospice services, barely half of aides under the age of 25 were likely to report that they would definitely become an aide again, compared to around three-fourths of aides ages 45-54 or 55 and older.[433] In surveys evaluating job attributes and satisfaction, more than 1 in 3 agency-based home health aides have reported that they are somewhat or very likely to leave their current job within the next year.[434] In fact, the home health care sector is marked by high vacancy and turnover rates. The median caregiver turnover rate for private providers in 2014 was over 60 percent, an increase of more than 22 percent from 2009.[435]

This high turnover, largely driven by job dissatisfaction, can disrupt the continuity of care for older adults[436] and has been shown to affect the quality of treatment in institutional settings.[437] For clients and their family members, inviting caregivers into their homes, and getting to know and rely on those who provide assistance with the most intimate aspects of their daily lives takes trust, and having to re-establish new relationships when caregivers leave can be extremely difficult. Additionally, the task of rearranging a care schedule to accommodate worker departures can be daunting and wearing for clients and family members. Even more importantly, caregiver turnover can affect clients' health; a study of participants in California's In Home Supportive Services program showed that having a change in provider during the year increased participants' odds of having a new injury, developing bed sores/contractures, and possible hospital admission compared to those who had the same provider through the year.[438]

High turnover of direct care staff is also expensive, and adds to the cost of care. Recruitment, evaluation, and training of new workers have been estimated to cost employers at as much as $4,872 per position,[439, 440] with high turnover rates estimated to cost $6 billion annually.[441] Almost two-thirds (62.8 percent) of private duty home care agency administrators identified the shortage of caregivers as one of the top three biggest "threats" to their business growth in 2015.[442]

The Cost and Financing of Long-Term Services and Supports

FORMAL LONG-TERM CARE COSTS ARE UNAFFORDABLE FOR MOST FAMILIES

Despite the low wages paid to the direct care workers who provide it, paid formal care is prohibitively expensive for most older adults. The unaffordability of paid formal care has largely resulted in the reliance on informal care, which has been valued at approximately $234 billion[443] to $470 billion annually.[444] For those requiring the most intensive services in an institutional setting, the median annual cost of nursing home care in 2015 was $91,250.[445] Home and community-based services, while less expensive, are still costly: the median annual cost of 44 hours of care each week by a home health aide was just under $45,800 in 2015, significantly exceeding the median annual income of older adults.[446] Rates for both homemaker assistance with household tasks and home health services vary widely across agencies and regions, ranging from $8 to $40 an hour, with a national median rate of $20 per hour.[447]

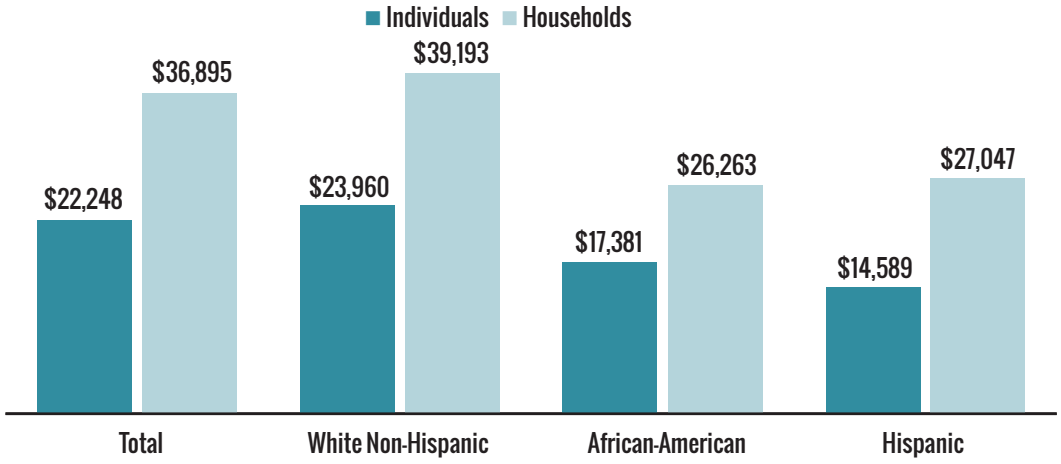
FIGURE 35. Median National Cost of Long-Term Services, by Type (2015)

MEDIAN NATIONAL COST OF LONG-TERM SERVICES, BY TYPE (2015)	
Nursing Home (daily rate at 365 days per year)	$91,250 (private room) $80,300 (semi-private room)
Assisted Living ($3,600 per month, one bedroom, single occupancy)	$43,200 annually (monthly rate multiplied by 12 months)
Home Health Care (median per hour = $20)	$45,760 annually (hourly rate multiplied by 44 hours per week, multiplied by 52 weeks)
Adult Day Services (median daily rate = $69)	$17,904 annually (daily rate multiplied by 5 days per week, multiplied by 52 weeks)

Source: "Genworth 2015 Cost of Care Survey: Home Care Providers, Adult Day Health Care Facilities, Assisted Living Facilities and Nursing Homes." Genworth Financial, Inc., 20 March 2015. Available at https://www.genworth.com/dam/Americas/US/PDFs/Consumer/corporate/130568_040115_gnw.pdf.

Comparing the costs of care to the income of older adults demonstrates plainly their inability to afford paid LTSS on their own. In 2014, half of all Medicare participants (including young adults with disabilities as well as seniors) had incomes below $24,150.[448] Median per capita income in 2014 was substantially higher for white Medicare participants ($27,450) than for black participants ($16,150) or Hispanic participants ($12,800), and varied significantly by age and education level. Participants with less than a high school education had median incomes of $13,850, less than one-third the amount of those with college degrees ($41,500).[449] Care is even less affordable for those who are most likely to need it; more than half of all participants ages 85 and older lived on an income of less than $18,850 in 2014.[450] Figure 36 depicts the median annual income for those over the age of 65 as of 2014, and Figure 37 compares various income thresholds to the cost of LTSS across settings in 2015.

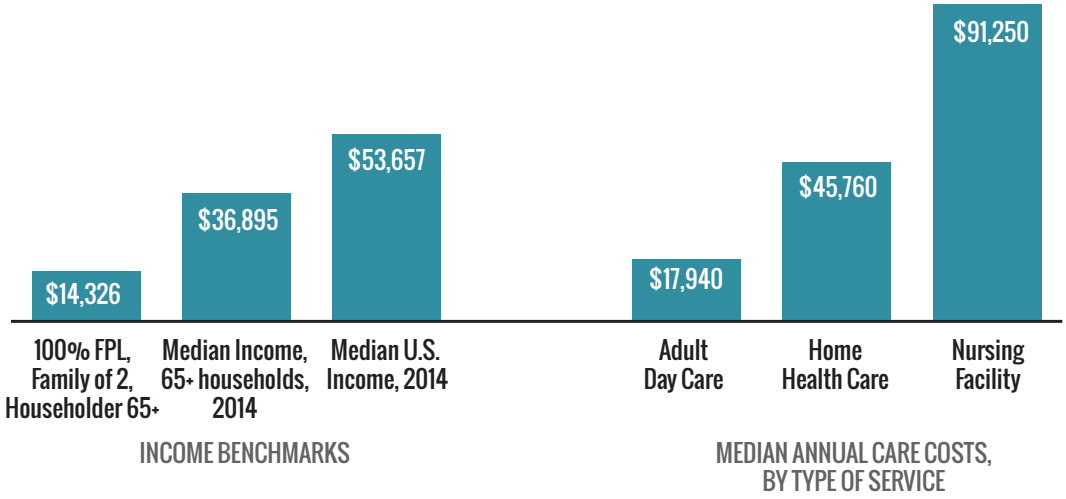
FIGURE 36. Median Annual Income of 65+, by Race or Ethnicity



Source: Current Population Survey, Annual Social and Economic Supplement, PINC-01 and HINC-02, September 2015.

See also DeNavas-Walt, Carmen, and Bernadette D. Proctor. "Income and Poverty in the United States: 2014." U.S. Census Bureau, Current Population Reports, P60-252, 2015. See Table 1.

FIGURE 37. Income Benchmarks Compared to the Cost of Care, 2015



Source: Genworth 2015 Cost of Care Survey, April 2015.

See also U.S. Census Bureau, "Poverty Thresholds for 2015 by Size of Family and Number of Related Children Under 18 Years."

Consequently, paid care is simply out of reach of most older Americans and drives their reliance on informal care.[455] Not surprisingly, 1 in 4 family/friend caregivers reported that it was "very difficult" in their community to get services that were affordable to help provide care, with 56 percent of family/friend caregivers identifying affordable care as either moderately or very difficult to secure.[456] Caregivers handling the greatest demands—requiring more than 21 hours per week—were more likely to identify the inability to afford paid help as the cause of their job loss than those with less intensive responsibilities, with 29 percent attributing their decision to exit the labor force to financial considerations.[457]

LIMITED PUBLIC FINANCING FOR LONG-TERM CARE HELPS ONLY A SMALL SHARE OF THOSE WHO NEED PAID SUPPORT

While estimates of long-term care expenditures vary widely,[458] according to National Health Expenditure Accounts data from the Centers for Medicare and Medicaid Services, total national spending on LTSS in 2013 was $310 billion.[459] While formal care is financed through both public and private spending, given the unaffordability of care for most Americans, almost three-quarters of the cost of formal long-term services and supports in 2013 were publicly funded.[460] More than half (51 percent) of total LTSS costs were covered by federal and state Medicaid spending.[461]

Medicaid pays for LTSS for people of all ages who meet income and asset qualifications for coverage.[462] Under Medicaid, states are required to pay for nursing home and other institutional care, but home and community-based services[463] are largely considered to be optional. The federal government has used a variety of incentives to encourage states to provide these services to Medicaid recipients and to "balance" their spending across settings.

Over the past 15 years, states have been shifting Medicaid-provided support from institutional-based care to home and community-based services. This shift has happened in part because participants strongly prefer to remain at home or in their communities, and in part because the Americans with Disabilities Act and *Olmstead vs. L.C.* require states to eliminate unnecessary segregation of people with disabilities and to ensure that people with disabilities receive services in the most integrated settings possible.[464] Additionally, Home and Community-Based Services (HCBS) are generally less expensive on a per patient basis than institution-based care.[465] However, the shift to home and community-based care has most significantly impacted those under the age of 65; of those on Medicaid, nearly 80 percent of participants under 65 use HCBS, compared to less than half of older adults who rely on long-term care.[466]

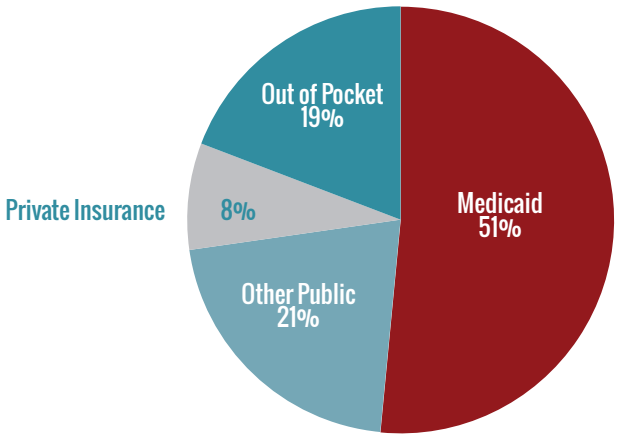
In contrast to Medicaid, Medicare by statute cannot cover the long-term personal assistance that is a core component of LTSS. Medicare covers some services delivered by long-term care providers, including acute and post-acute care for those 65 and older, younger disabled Americans who qualify for Social Security, and those with certain chronic conditions.[467] Medicare covers skilled nursing facility care for up to 100 days following a three-day or longer hospital stay, for those who need daily skilled nursing or rehabilitation services. It also pays for medically necessary home health services, part-time or occasional skilled nursing care, or physical, speech, or occupational therapy for homebound participants to help restore functioning or when services are required to prevent or delay deterioration.[468] Because these benefits are typically associated with acute episodes, they are appropriately not typically included in estimates of public funding of LTSS.[469]

ECONOMIC INEQUALITY AND THE COST OF CARE

Recent research suggests that—just as among the population as a whole—inequality among seniors has widened over the course of the last three decades.[451] In 2010, of all the income received by those ages 65-74, those in the top 20 percent got nearly half, while the lowest-income 40 percent received only about 14 percent, down from 17 percent in 1983-1984. Among those 65 and older, those with incomes less than about $26,000 (the lowest-income 20 percent) depend largely on Social Security for 65 percent of their total income, with Supplemental Security Income supplying 7 percent and wages another 5 percent. The annuitized value of their savings and investments contributed about 12 percent of their total income.[452] In contrast, the top quintile, those with incomes of around $113,000 or more, received income from varied sources, including Social Security, pensions, investments, and wages. Social Security accounted for only 18 percent in 2010, less than their earned income, while their financial assets generated nearly 42 percent of their annual resources.[453] Racial disparities persist even for the wealthiest older adults: the top 10 percent of white Medicare participants had savings above $723,200 in 2012, compared to $137,200 and $215,550 in savings among the top 10 percent of black and Hispanic participants, respectively.[454]

Additionally, as shown in Figure 38, 21 percent of LTSS expenditures in 2013 were financed by other public sources, 19 percent were costs paid privately out of pocket, and 8 percent were borne by private insurance.[470] Most spending on LTSS from private sources is for out-of-pocket payments for institutional care.[471]

FIGURE 38. National Expenditures for Long-Term Services and Supports, by Source (2013)



Source: Reaves, Erica L., and MaryBeth Musumeci. "Medicaid and Long-Term Services and Support: A Primer." The Kaiser Commission on Medicaid and the Uninsured, 15 December 2015. Available at http://kff.org/medicaid/report/medicaid-and-long-term-services-and-supports-a-primer/.

Note: LTSS expenditures include spending on residential care facilities, nursing homes, home health services, and home and community-based waiver services, as well as spending on ambulance providers and some post-acute care. It does not include Medicare spending on post-acute care ($74.1 billion in 2013).

While states have worked to rebalance their Medicaid spending on long-term services across settings, they differ significantly in the share of funding devoted to HCBS. Total Medicaid spending on LTSS in FY2013 was $146 billion, approximately 34 percent of total Medicaid spending for that year.[472] For the first time, more than half (51.3 percent) of Medicaid expenditures nationally on LTSS were spent on home and community-based services.[473] In large part, this reflects the fact that under the Affordable Care Act, $4.3 billion in federal funding was provided to encourage states to expand options for home and community-based services.[474] While states have taken advantage of these incentives, state HCBS spending still varies widely because coverage is largely at the states' option. State HCBS spending ranges from 25.5 percent of LTSS spending in Mississippi to 78.9 percent in Oregon for FY2013.[475] A majority of states (26) directed less than half of their LTSS expenditures on HCBS.[476]

Consequently, although Medicaid functions as our nation's best safety net for those with long-term care needs, the support it provides for home and community-based services varies significantly from state to state because it is financed through federal cost matching of state spending. And even the best-financed states fail to meet all low income older adults' needs. In 2012, $55.8 billion expended through the three main Medicaid home and community-based programs—Section 1915(c) waivers, home health state plan services, and personal care state services—provided LTSS to more than 3.2 million people, a slight decline from 2011.[477] Annual per participant spending on Medicaid HCBS averaged $17,151 in 2012, but with wide variation both among states and between Medicaid programs.[478]

The majority of Medicaid HCBS spending—$40.8 billion for approximately 1.5 million participants in 2012—is made pursuant to Section 1915(c) waiver programs.[479] Almost half (48 percent) of Section 1915(c) waiver participants (720,204 individuals) were those targeted as either aged or aged/disabled, accounting for 21 percent ($8.5 billion) of spending.[480] Just over $11.5 billion in waiver spending was directed to respite/home health/personal care services.[481] The waiver authority permits states to restrict eligibility, impose enrollment caps and institute waiting lists to control costs. The waiting list levels provide one indication of the need for affordable LTSS among just the lowest income Americans; more than 582,000 individuals were on Section 1915(c) waiting lists across 39 states in 2014, and the national average duration of their waiting period was 29 months.[482] More than 1 in 4 (27 percent) of those registered on waiting lists, totaling 155,697 people, were those served by waivers for the elderly or people who are elderly and disabled.[483]

Under the other two major Medicaid vehicles for spending on HCBS—the Home Health Services and Personal Care Services state plan benefits—states are required to provide services to all eligible individuals, and thus may not cap enrollment or maintain waiting lists.[484] Instead, they may adopt restrictive eligibility criteria or limit services and benefit levels in order to contain costs. For example, only 14 states provide assistance with IADLs under their home health state plan benefit, and 31 states provide IADL assistance under their personal care state plans.[485] In 2014, 30 states limited either expenditures or services, or both in their home health services plans, and 21 of the 34 states with optional personal care services plans limited expenditures or services to control costs.[486] Some states have also used other Medicaid waiver authority to cover LTSS under managed care programs, which accounted for 9.9 percent of LTSS spending in FY2013.[487]

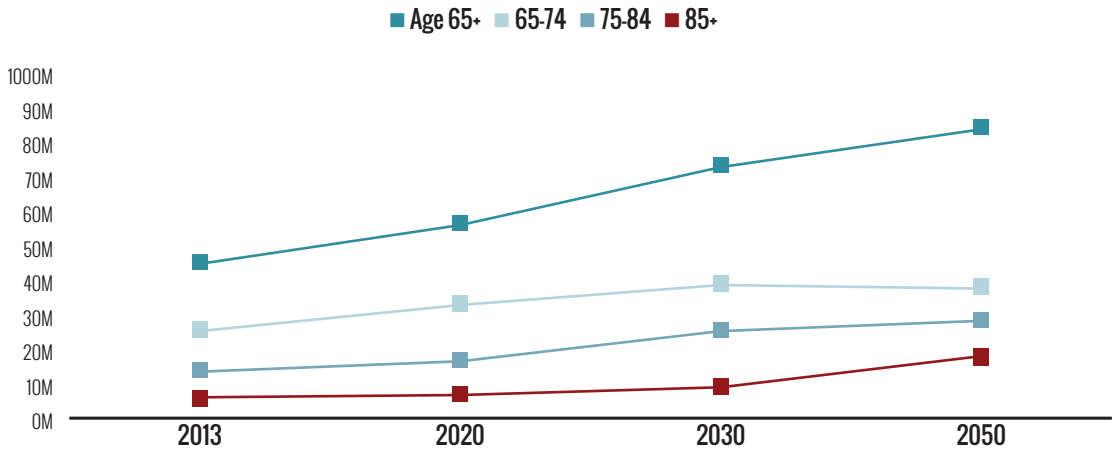
This so-called organization of various narrowly-tailored programs leads to a "fragmented and sometimes impenetrable system"[488] that is generally inadequate and significantly inequitable for those who are Medicaid-eligible. For middle-income families who do not meet the income, asset, and disability requirements for Medicaid eligibility, privately paid home health care at typically-used levels is simply unaffordable.[489] As importantly, the variability between states and lack of transparency and clarity around eligibility and coverage requirements make it complicated for families to evaluate the risks and impact of their potential long-term care needs. Given the country's changing demographics, more and more families will confront the hard reality of trying to meet their long-term care needs without an expansion of public investment in formal support.

The Looming Demographic Crisis

NEED FOR FORMAL, PAID CARE WILL INCREASE WITH AGING POPULATION

The need for long-term support and services and the challenges of providing it both formally and informally are expected to grow significantly in the coming years as the U.S. population ages. Members of the Baby Boom generation began turning 65 in 2011, and their aging, combined with increases in longevity, will cause the elderly population in the United States to grow dramatically over the next 35 years. By 2030, more than one-fifth of the total population (and one-fourth of all adults) will be 65 or older, with this cohort projected to grow to more than 83.7 million residents by 2050.[490]

FIGURE 39. Size of Age 65+ Population, Current and Projected

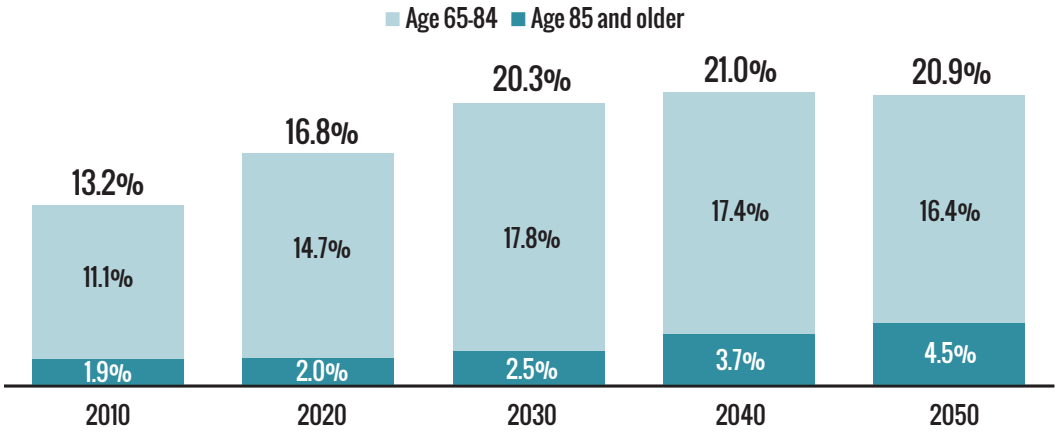


Source: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014, 2013 Population Estimates.

See also Ortman, Jennifer M., Victoria A. Velkoff, and Howard Hogan. "An Aging Nation: The Older Population in the United States." Current Population Reports, U.S. Census Bureau, P25-1140, May 2014. Available at https://www.census.gov/prod/2014pubs/p25-1140.pdf.

From 2030 to 2050, the share of those 85 or older will grow the fastest; they will come to comprise just over 4.5 percent of the population (more than 5 percent of all adults) by 2050, more than 10 times the share of the population they represented a century before (in 1950).[491] The number of these "oldest old" Americans will almost triple, from over 6 million to just under 18 million by 2050.[492]

FIGURE 40. The Aging of the U.S. Population

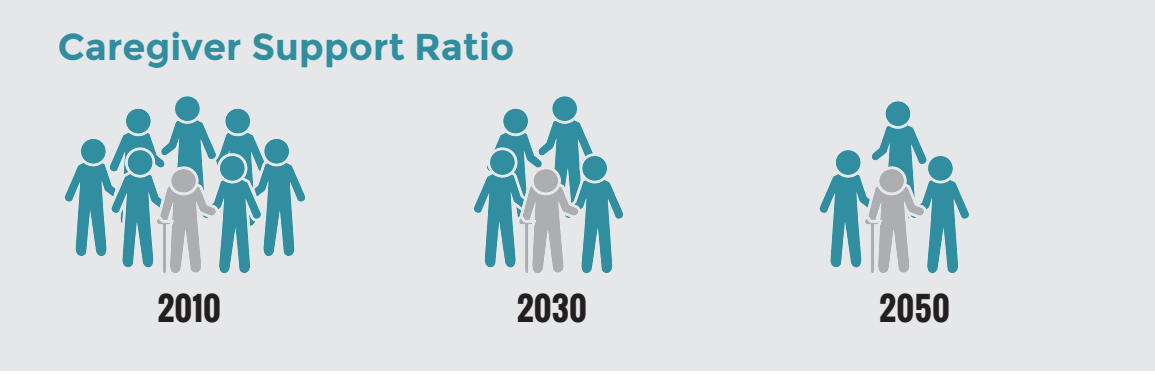


Source: Ortman, Jennifer M., Victoria A. Velkoff, and Howard Hogan. "An Aging Nation: The Older Population in the United States." Current Population Reports, U.S. Census Bureau, P25-1140, May 2014. Available at https://www.census.gov/prod/2014pubs/p25-1140.pdf.

As a result of the aging of the population, the dependency ratio—the prospective responsibility of the working population for those under the age of 18 and over the age of 65—will drop significantly. While as of 2014 there were 19 people ages 65-84 for every 100 working-age people, the ratio will climb to over 35 by 2030.[493] As Baby Boomers continue to retire, and experience increased disability as they age, increasing the labor force participation rate and employment-to-population ratio is becoming even more critical—and will only intensify over time—to help manage the social and economic consequences of the aging of the population.

In particular, these demographic shifts, and the functional limitations in the population that are likely to accompany them, will increase the need for LTSS over the coming decades. According to estimates, approximately 70 percent of those ages 65 and older will use LTSS, with those 85 and older more than four times more likely than those ages 65-84 to need LTSS.[494] While it is difficult to estimate the impending need for LTSS based on the variability and prevalence of functional limitations of elderly in the coming decades, it is clear that the expected increase in elderly population, even without an increase in functional limitations, will significantly increase the need for formal or informal care.

Microsimulation modeling of the needs and usage of long-term care indicates that the number of persons ages 65 and older needing assistance with at least two ADLs for 90 days or more, or a severe cognitive impairment that requires substantial supervision, will grow from 6.3 million in 2015 to almost 15.7 million by 2065.[495] Of those turning 65 between 2015 and 2019, 52 percent are expected to have at least some needs for LTSS, with higher expectancy rates for women (57.5 percent), those in the lowest income quintile (55.3 percent) and those self-reporting to be in fair or poor health (54.8 percent).[496] On average, most Americans who age past 65 will need two years of LTSS, with a projected one year requiring paid services.[497] Assuming no change in "the patterns of use" of long-term care workers, the Congressional Budget Office projects under various scenarios—including a decline in the prevalence of functional limitations—that the demand for both formal and informal caregivers providing LTSS will grow to require caregiving from 7 percent to 11 percent of the nonelderly workforce by 2050.[498]



At the same time, these demographic shifts will constrain the number of family members potentially available to provide informal care, increasing the responsibilities of those who are at hand and leaving many older adults in need without assistance. In 2011, approximately 20 percent of Medicare recipients over the age of 65 who experienced difficulty taking care of their personal and household needs reported receiving no help.[499] Given changes in family composition, this incidence is likely to increase; the numbers of those ages 45-64 who are most commonly engaged to provide support are predicted to decline, shrinking the "caregiver

support ratio" from seven potential caregivers ages 45-64 for every person 80 years or older in 2010 to only 4 to 1 by 2030 and further still to 3 to 1 by 2050.[500]

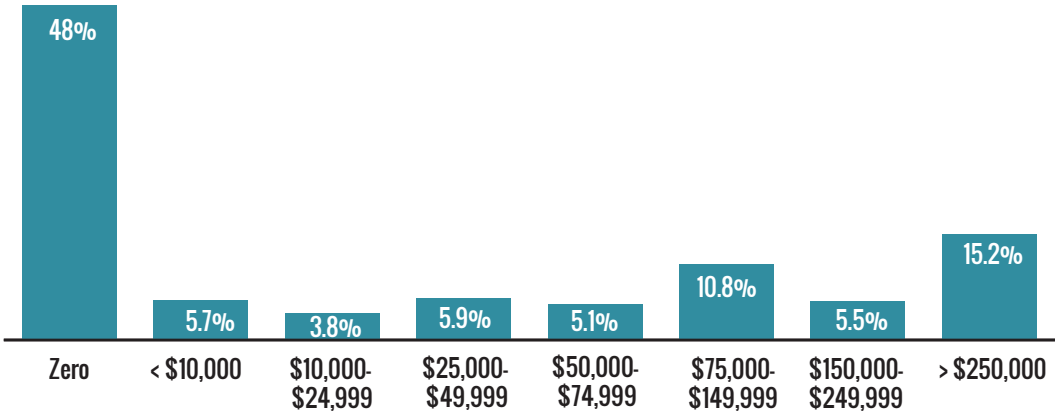
Based on these trends, 83 percent of people in their peak working years (ages 51-54) are likely to be responsible for providing LTSS for their parents or in-laws, while 45 percent of those ages 60-69, approaching or in retirement are at risk of providing care.[501] Married older adults are also at risk of having to care for their spouses who are in poor health, and the risk of having to provide spousal care is highest among those who do not have high school diplomas, are in poor health themselves, and have low income and assets.[502] Americans overwhelmingly wish to remain at home or in other community-based settings as they age, but achieving that objective as the number of older adults needing assistance grows will be increasingly challenging without expanding access to paid home care.

OLDER ADULTS AND THEIR FAMILIES ARE UNEQUIPPED TO AFFORD PAID LONG-TERM CARE WITHOUT SUPPORT

Not surprisingly, spending on LTSS, not including the value of informal care, is also expected to grow significantly due to the aging of the population. While projections (and actual costs) vary based on individual limitations and circumstances, according to modeling estimates, on average someone turning 65 today who needs assistance with at least two ADLs or for a severe cognitive impairment will incur $138,000 in long-term care costs.[503] For that individual, the average cost of community-based care expected for the remainder of their lifetime is estimated at $72,800, 71 percent of which would be privately borne.[504]

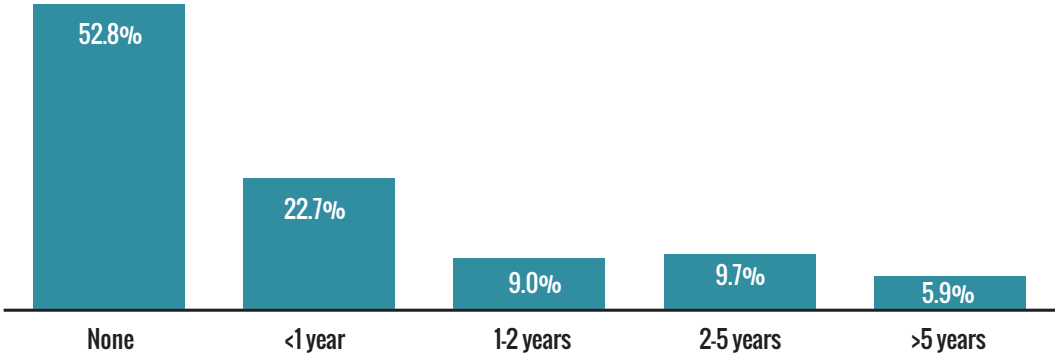
However, the need for LTSS is a risk-based proposition: almost half (48 percent) of these adults are projected to die without any LTSS expenditures (see Figure 41), and 62.7 percent will not face any out-of-pocket costs. Since not everyone will actually need LTSS as they age, for those who will at some point use paid LTSS,[505] the projected average cost of care rises to $266,000, with those facing out-of-pocket costs spending an average of $140,000 on community-based care.[506] More than 15 percent of all adults turning 65 over this period are projected to spend more than $250,000 in out-of-pocket costs on LTSS, and almost 1 in 4 of them will likely need LTSS for more than one year, as shown in Figure 42.[507]

FIGURE 41. Expected Distribution of LTSS Expenditures for Adults Turning 65 in 2015-2019 (2015 Dollars)



Source: Favreault, Melissa, and Judith Dey. "Long-Term Services and Supports for Older Americans: Risks and Financing." ASPE Research Brief, Office of Disability, Aging and Long-Term Care Policy, HHS Office of the Assistant Secretary for Planning and Evaluation, revised February 2015. Available at https://aspe.hhs.gov/sites/default/files/pdf/106211/ElderLTCrb-rev.pdf.

FIGURE 42. Projected Term of Use of Paid LTSS for Adults Turning 65 in 2015-2019



Source: Favreault, Melissa, and Judith Dey. "Long-Term Services and Supports for Older Americans: Risks and Financing." ASPE Research Brief, Office of Disability, Aging and Long-Term Care Policy, HHS Office of the Assistant Secretary for Planning and Evaluation, revised February 2015. Available at https://aspe.hhs.gov/sites/default/files/pdf/106211/ElderLTCrb-rev.pdf.

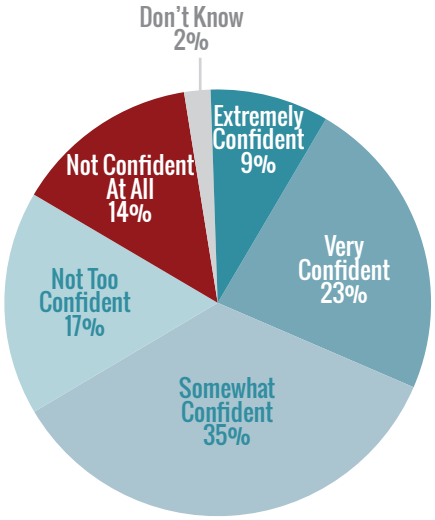
Adults Underestimate Their Anticipated Need for Care

Although researchers, analysts, and policymakers have focused intensively on forecasting long-term care needs, adults who may need the care have not. Adults surveyed have serious misconceptions about the impact of aging on their ability to live independently. This attitude, combined with their modest incomes and limited savings, makes it unrealistic that they will plan for and be able to shoulder future costs of long-term care. In sharp contrast to projections suggesting that more than two-thirds of those who reach age 65 will need long-term services in their lifetime,[508] only one-third of middle-income Baby Boomers believe they will need LTSS, despite the fact that 40 percent of them have already provided care to a parent or a spouse.[509] More than half of adults over 40 (54 percent) have done little or no planning toward their own long-term care needs[510] and nearly three-fourths of middle-income Baby Boomers have no plan for their retirement care.[511] More than half (56 percent) of Baby Boomers have had no discussion with anyone about how they expect to pay for the kind of care they want.[512] Of those Baby Boomers who reported caring for a parent or spouse, and who were more likely to recognize the eventual need for their own care, only one-third had made a plan for their retirement, and fewer than 1 in 4 have considered purchasing long-term care insurance.[513]

Survey data suggest most American adults are unprepared for the reality of the cost of long-term care and how to secure it. Only 2 in 10 Baby Boomers could venture a guess as to the average cost of nursing home or home health aide care, and those who did underestimated the cost of nursing home care by almost half.[514] In a survey of adults age 40 and older, 20 percent did not know whether private health insurance would cover long-term residency in a nursing home and 27 percent did not know whether those costs would be covered by Medicare.[515] More than three-quarters of middle income Baby Boomers (78 percent) either mistakenly think that Medicare will cover the costs of long-term care, or do not know how they will fund it.[516]

While more workers express confidence in their ability to afford a comfortable retirement than in recent years following the Great Recession, only 14 percent of workers and 25 percent of retirees report being very confident in their ability to pay for long-term care expenses.[517] Just under one-third of workers (32 percent) are not at all confident that they will have enough money for pay for nursing home or home health care during their retirement, and two-thirds (66 percent) had not yet set aside money to pay for ongoing living assistance expenses including nursing home care, residence in a senior community, or care from a home health care aide.[518]

FIGURE 43. Confidence Regarding Ability to Pay for Care in Older Age



Source: "Long Term Care in America: America's Outlook and Planning for the Future." AP-NORC Center for Public Affairs Research, July 2015. Available at http://www.longtermcarepoll.org/Pages/Polls/long-term-care-2015.aspx.

Families Lack Financial Resources for Paid Long-Term Care

Even if they better understood the risks and costs associated with needing long-term care, workers' ability to manage the financial costs associated with long-term care as they age is limited; most Americans simply lack the income and assets to afford institutional care or intensive or long-term community-based services. When prompted to consider what their later years would look like should they need support, more than 80 percent of middle income members Baby Boomers surveyed prefer to receive care at home rather than in a nursing facility or at the home of one of their children.[519] They report expecting to be more likely to rely on help from a home health aide than from their children.[520] Financial data, however, suggests that few will be able to pay for help with their own resources.

While projections suggest that incomes of Medicare participants will rise over the next 15 years, the increases vary inequitably based on income level, with those in the bottom quartile projected to see increases of 13 percent (an amount equal to $2,000 in inflation-adjusted dollars) compared to 22 percent for those in the top 5 percent, an increase of approximately $20,650.[521] By 2030, median income is still projected to be only $28,450, with a quarter of participants projected to have incomes below $16,200.[522]

Additionally, few adults have sufficient financial resources to draw on for basic or catastrophic LTSS:

- Among those 65 and older, median savings, including retirement accounts and other assets, was almost $63,100 in 2012, with significant racial disparities in asset holding.[523]
- Conversely, 61.3 percent of households headed by an adult ages 60+ had some form of debt in 2013; among senior households with debt, their median total liability was $40,900.[524]
- More than 4 in 10 workers ages 45 and older (42 percent) who responded to questions regarding their income and assets have savings and investments (excluding the value of their primary residence) totaling less than $25,000.[525] Almost 1 in 3 (28 percent) reported having less than $1,000 in savings and investments not including the value of their primary residence or a defined benefit plan.[526]

Their circumstances are unlikely to change as they approach retirement. Half of workers attribute their lack of or limited retirement savings to the need to meet their day to day expenses.[527] And their situation is all too common: among those who had already retired in 2015, 53 percent reported less than $25,000 in savings outside of their primary residence and defined benefit plan.[528] These adults and their families simply lack the financial resources that on their own would sustain the market demand for paid long-term services to drive new job creation.

Few Adults Have Private Insurance to Cover Long-Term Care Expenditures

The lack of clarity and understanding about the risks and expense of long-term care are compounded by the mistaken belief by most adults that their health insurance plan will cover the costs of long-term services and support.[529] While there actually is a separate private market for LTSS insurance, only around 8 percent of Americans have purchased it.[530] In 2011, anywhere from an estimated 7 to 9 million Americans had private long-term care insurance, with an average annual premium of $2,283.[531] The rate of coverage varies by age, ranging from 12.4 percent for adults age 65 and older to 5.4 percent for those ages 45 and over, and represents about 16 percent of those who would be eligible to purchase it pursuant to underwriting income thresholds.[532] Most urgently, though, almost 9 in 10 of surveyed middle-income Baby Boomers do not own long-term care insurance, and more than a third of them were completely unfamiliar with the concept.[533]

Because these plans typically include limits on the value and duration of benefits, even consumers who purchase them still bear the risk of significant costs associated with extended care. In some cases, states have sought to incentivize consumers to purchase long-term care insurance nevertheless by allowing those who exhaust their private benefits to qualify for Medicaid without spending down all of their assets to general Medicaid-eligibility levels.[534] A plan included in the Affordable Care Act to establish a national, voluntary long-term care insurance program, the Community Living Assistance Services and Supports (CLASS) Act, would have provided a defined daily cash benefit for participants who made at least five years of payments during the course of their employment and maintained their premiums through retirement; however, it was repealed after its formulation proved to be financially unsustainable.[535]

With the burgeoning need associated with the aging of the population, paying for anticipated long-term services and supports is an increasing concern for older adults and their families and a growing challenge for the federal and state governments. In 2011, LTSS expenditures for the elderly represented an estimated 1.3 percent of GDP.[536] The CBO projects that even if the prevalence of functional limitations among the elderly were to decrease in the coming years, spending as a share of GDP will grow to 1.9 percent. Projections where functional limitations increase swell to as much as 3.3 percent of GDP by 2050.[537] Investments in home- and community-based services are needed to help more Americans afford care before they deplete their savings, and to maintain functioning and ultimately avoid costly institutional care. But investments also must be structured to create good jobs that will attract and retain a workforce that can provide high-quality care.

Policy Recommendations

This report provides a framework for investments that can be adopted at the federal, state and local levels to expand access to formal care and improve the quality of caregiving jobs as a stimulus to local economies; however, getting to scale to meet the needs of families across the country—and reducing state-by-state inequities that have left many families behind—will require the federal government to play a central role in shaping and funding investments that will significantly support the economy.

The research findings, challenges and opportunities outlined in this paper can be addressed through policy reforms initiated at all levels. On the early care side, for example, states could standardize wages across publicly-funded early education settings, and expand access to high-quality formal care through a cost-sharing arrangement as laid out below with local governments. States could also continue to rebalance spending on home and community-based long-term care, and adopt wage pass-throughs for long-term care workers, as many states have begun exploring.

The various strategies outlined below, if adopted singularly or ideally together, and financed at the necessary levels by the federal government, would stabilize the caregiving sector, significantly increase access to care for Americans who need it, create new job opportunities for those disconnected from the labor force, and improve the financial and physical well-being of caregivers and their families.

At the heart of the recommendations for both the ECE and LTSS segments of the caregiving sector are new federally funded investments that would create good caregiving jobs by expanding access to high-quality care for families with limited ability to afford formal care arrangements on their own. Further, though, the recommendations recognize that for any expansion of services to be successful, it is critical to invest in the caregiving workforce to promote recruitment and retention and to raise the quality of care. This includes leveraging the federal government's current role by financing wage increases for the existing federally funded caregiving workforce, and supporting complementary workforce development initiatives across

both areas that would prepare new workers, improve the quality of care to be delivered, and provide opportunities for career advancement. These investments in training and professional development will promote recruitment of workers into the caregiving field and the success of the expansion itself. Together, by establishing mechanisms to expand and cultivate the formal caregiving workforce, these initiatives will create an infrastructure that sustains good jobs and provides essential support to those in need of care.

Paid Leave Recommendation: State Paid Leave Policies Yield Positive Results that Should Inform Expansion of Policies at Local, State, and Federal Levels

Apart from improvements to the structure and financing of early care and education and long-term services and supports, providing paid leave can help alleviate the challenges that impact work and family well-being. Under the federal Family and Medical Leave Act of 1993[538] (FMLA), employers are required to provide employees who have worked at least 1,250 hours in the previous year with at least 12 weeks of unpaid, job-guaranteed leave for childbirth, adoption, foster care placement, a serious personal medical condition, or care of a child or spouse with a serious medical condition. Employers are exempted from federal requirements if they have fewer than 50 employees within a 75-mile radius of all worksites.[539] While the FMLA has provided crucial job protection for families, the reality is that too many Americans simply cannot afford to take time off without pay, regardless of the circumstances. Paid leave to cover care-related events is scarcely provided as an employee benefit; only 58 percent of employers provide some kind of replacement pay (other than accrued paid leave, sick or vacation days) for maternity leave, and only 14 percent provide replacement pay for spouse/partner leave.[540] Only 13 percent of workers in the United States have paid leave offered through their employers.[541] And among those fortunate enough to have it, only 16 percent receiving some kind of compensation received full pay.[542]

Recognizing that families need to be able to take time off to care for themselves and their loved ones without the complete loss of their income, five states—California, New Jersey, New York, Rhode Island and Washington (laws in Washington and New York have been authorized but not yet implemented)—along with the District of Columbia and San Francisco, have taken the lead in adopting paid leave laws. The laws generally allow time off with pay needed to care for a new child or for a serious health condition for the worker or a family member; state policies vary in which family members are covered, the duration of leave covered, and the share of pay provided.[543]

California's 6-week paid leave program, implemented since 2004, has improved job retention among low-wage workers by 9 percent.[544] Five years into implementation, most employers reported minimal impact on their business operation, and either a "positive effect" or "no noticeable effect" on productivity (89 percent), profitability/performance (91 percent), turnover (96 percent), and employee morale (99 percent).[545] Among new parents in low-quality jobs who did use paid family leave, 91 percent reported that it had a positive effect on their ability to care for their child, and 72 percent reported a positive effect on their ability to arrange child care compared to 49 percent of those who did not use it.[546] However, more than half of surveyed workers—particularly low-wage workers, immigrants, and Latinos—did not know the program existed.[547] Among those who were aware of it, roughly a third did not apply for it because the wage replacement was too low, or because they feared adverse consequences in their employment,[548] issues that should be addressed in any expansion of paid leave policies.

Despite these challenges, the benefits of paid leave are clear: expanding paid leave would help both new parents and family members of older adults in need of support to devote the care they want to provide without significant financial hardship, and would reduce the public cost of providing formal paid care. Federal initiatives to provide funding to states to adopt paid leave programs, along with policies that would establish nearly universal access to paid family and medical leave, like the FAMILY Act,[549] are critical components of addressing the nation's caregiving needs.

Early Care and Education Recommendations: Improving Wages of Current Publicly Funded ECE Workers and Expanding Provision of Subsidized Formal Care are Critical to Supporting Families, Providing High-Quality Care for Children, and Creating New Jobs

Increasing federal investments in early care and education to improve job quality and expand access to high-quality programs can support parents who want and need to work, nurture children's early development, and offer good jobs for those who provide care. Leveraging federal financing can also help foster an effective, equitable and stable ECE system by addressing variations such as wage disparities across care settings, and differing teacher qualification requirements and caregiving ratios. Although these investments are expensive, they will help build the infrastructure for the kinds of early care and education that would promote positive outcomes for children and produce short- and long-term returns for our economy, as shown previously.

Additionally, the expansion of child care has been linked to increased labor participation of parents, particularly mothers. Over two decades ago, the Government Accounting Office estimated that free child care would increase labor force participation of all poor mothers from 29 percent to 44 percent, a 52 percent change in employment.[550] Some estimates suggest that a 10 percent decrease in price would increase labor force participation by 2 percent for single mothers and 9 percent for married mothers,[551] and Blau and Hagy projected that the full funding of child care by the government would result in a 10 percent increase in overall maternal employment.[552, 553] Because each 1 percent increase in the workforce boosts total national income by 1 percent, or approximately $180 billion,[554] increasing access to formal early care can serve as a key economic driver, especially when coupled with the returns from reducing unemployment by expanding the caregiving workforce.

These short-term economic benefits would be supplemented with the returns that high-quality early care and education can produce over the long-term for children. One study has estimated that investments in a voluntary, high-quality universal prekindergarten program for 3- and 4-year-olds across the United States would yield $8.90 in benefits for every publicly financed dollar, generating $304.7 billion total by 2050.[555] Another projects that access to high-quality prekindergarten could enhance long-term economic growth by 3.5 percent of GDP, or more than $2 trillion dollars by 2080,[556] far outstripping the cost of the investment.

As set forth below, getting to scale in the number of young children served in formal, high-quality care arrangements will require the dedication of substantial resources to:

1. Improve compensation for the existing workforce to promote stability across the system and the well-being of workers' families;
2. Expand access to create jobs and enable the use of formal care; and
3. Provide training and other professional development to the ECE workforce.

#1. DIRECTLY RAISE WAGES OF FEDERALLY FUNDED ECE WORKERS THROUGH A WAGE PASS-THROUGH, INCREASING INCOMES AND PROMOTING WAGE EQUITY

Increasing wages for the existing federally funded ECE workforce is a necessary first step to stabilize and improve formal care arrangements. By providing additional funding to states designated specifically to raise wages among caregivers who are providing services under current federal programs—a mechanism known as a wage pass-through—the federal government can improve the financial well-being of a significant segment of the formal ECE caregiving workforce.

Limited public financing has historically pitted efforts to expand access and maintain affordability against wage enhancements for staff. According to one analysis, if current workers were to be paid comparably to their qualifications, the price of early care and education would be 22 percent higher.[557] As a result, the lack of sufficient pay and inadequate benefits are identified by early care teachers and caregivers as the major obstacles to joining the field and the biggest challenges for those who want to continue.[558]

Low wages may also reflect a lack of appreciation for the skill involved in providing early care and education, where building relationships with children and crafting what looks like play and basic caretaking into learning opportunities mask the knowledge and talent needed to do both things well.[559] The fact that early childhood workers are predominantly women, and the gender-biased devaluation of women's work also contribute to current and historically low wages across the sector.

Additionally, wage variations across settings and across age groups within settings contribute to instability within the system, driving even committed staff to pursue relatively-higher pay settings within the field. This undermines organizations' willingness to invest in professional development that would improve the quality of care, since additional education, credentials or certification can make workers more viable candidates for positions in higher-paying settings like public school pre-K programs. Recognizing the importance of raising wages and reducing variability, a few states including Oklahoma, New Jersey, and Alaska have adopted salary parity with school districts' K-12 scale for teachers in their pre-K programs. North Carolina and Georgia have uniform pay scales across settings, but not on par with public school teacher salaries and benefits.[560]

At the federal level, the government has used its contracting power to raise wages in other sectors. Executive Order 13658 mandates a minimum wage of $10.15 (as of January 1, 2016) for all workers on new and replacement construction and service contracts, as well as concession and other contracts relating to federal property.[561] Implemented last year, the raise was authorized on the grounds that it would increase productivity, boost morale and reduce turnover.[562] The Department of Defense Child Care Program also provides valuable precedent for expanding government investments in a high-quality, center-based early care and education program with salary parity for ECE staff. Starting in 1989 with the goal of ensuring military families with access to high-quality care, the program charges families based on their income, rather than on the cost of care, and teachers are paid based on their education and experience in accordance with the General Schedule scale that applies to all government workers.[563] While entry-level salaries remain low—in line with hourly wages reported in the NSECE—quality of care is emphasized through standards and accreditation requirements and promoted through an extensive training system.

Investing in wage increases for federally funded ECE staff that appropriately value higher educational attainment and qualifications would convert existing low wage work to middle-income jobs and put the United States on track to improve the quality of early childhood care and education. It is also a necessary foundation for the expansion proposal set forth in the recommendations below, as history has shown. For example, following the expansion in funding and access supported by increased appropriations to the Head Start program in the early 1990's, 40 percent of surveyed Head Start grantees reported having difficulty finding qualified staff, citing their inability to offer acceptable salaries and benefits as a major barrier.[564]

As a starting point to determine the investment needed to increase and stabilize wages for existing federally funded caregivers, hourly wage goals to improve the quality of ECE jobs by educational attainment would be established as follows:

- For workers with up to a high school degree and/or some college, a baseline hourly wage of $15.00. This reflects the rising movement to a $15/hour minimum wage across the country,[565] and would ensure sufficient public resources that might be needed to cover any required wage increases in those locales that have adopted or are considering higher minimum wages, without jeopardizing publicly funded ECE centers' financial viability or families' access to care.

- For workers with an associate degree, a baseline hourly wage of $17.70, which preserves the current 18 percent wage premium for these workers compared to those with a high school degree, as currently reflected in median wage data for the sector.[566]

- For workers with a bachelor's degree or higher, a baseline of $24.82, matching the median annual salary for kindergarten teachers.[567]

The pass-through would be provided to workers directly by the federal government as a semi-annual wage supplement based on their work over the previous six months. As part of their federal reporting obligations, states would certify to the federal government, based on ECE center reports, the identity of staff who worked pursuant to grants or contracts made by the state or local governments under federally funded programs (e.g. CCDF) along with their wages, hours worked, and educational level. For centers and home-based caregivers that provide care to young children with federally funded vouchers or certificates, this staffing information would be sent by providers to the state as part of the state or locality's voucher certification and reimbursement process. Note that in order to avoid further wage variation, our estimates assume that all center-based staff will receive a pass-through, regardless of whether they have a child with a voucher enrolled in their particular classrooms.

Estimating the number of federally funded teachers and caregivers who would be eligible to receive a wage increase through a federal pass-through is challenging. Current reporting requirements mandate that states detail the type and number of *providers* receiving CCDF and related funds, but not the number of teachers and caregivers per provider.[568]

Similarly, little is known about the specific educational levels of CCDF-funded teachers and caregivers. As noted earlier, there are wage variations among those with similar educational attainment across center-based settings. Given these limitations, to develop an estimate of the cost of wage increases that account for educational attainment, we extrapolate from wage data collected through the National Survey of Early Care and Education[569] as described more fully in the Appendix.

We calculated the estimated investment needed for a federally funded wage pass-through for center-based staff in two ways, yielding cost estimates of $12.2 to $13.8 billion. According to our analysis, the investments in raising wages of current federally funded early care and education providers could conservatively generate a short-term, recurrent fiscal impact from $8 billion to more than $16 billion, representing more than half to almost 140 percent of the expected cost of the program, as outlined in Figure D1.

Finally, we calculated the additional cost of passing along a wage increase to licensed, regulated home-based providers who receive federally funded subsidies at an estimated $195.6 million annually as set forth in Figure E1.

#2. EXPAND CHILDREN'S ACCESS TO HIGH-QUALITY CARE BY CREATING GOOD NEW JOBS FOR CAREGIVERS IN A FORMAL EARLY CARE AND EDUCATION INFRASTRUCTURE

The provision of high-quality care for young children requires high-quality employment opportunities for professional caregivers. This goal is guided by three objectives:

a) To increase access to the kinds of care that parents seek for their children and that can be best expected to promote their intellectual, social and emotional development, but is currently out of reach because of cost.

b) To maximize the number of good jobs to be created, within a framework that is stable, cost efficient, and able to be integrated as desired into states' existing early care and education and quality rating systems.

c) To ensure that new jobs reasonably match the skill level of unemployed workers, and help ensure that adults from the communities of the children to be served are prepared for and connected to the jobs to be created.

To meet these objectives, new jobs would be created in the ECE sector to increase families' access to high-quality care, primarily by directly subsidizing center-based programs, with the federal government assuming the labor costs associated with staffing and states or localities providing supplementary funding to cover ancillary related costs. The funding structure promotes center-based care in particular for the following reasons:

- First, an estimated 6.98 million children ages 0-5 (not yet in kindergarten) are enrolled in some 129,000 center-based programs that provide care and education.[570] As the data on usage of CCDF subsidies outlined earlier shows, parents of young children overwhelmingly elect to use their vouchers to secure center-based care. Additionally, 96 percent of Head Start preschool slots were center-based in 2013-2014,[571] and just under half (49 percent) of Early Head Start slots were center-based.[572] This is consistent with research on parental perceptions and search for care, which suggests that parents highly value center-based care but find the cost prohibitively expensive, as the cost data bears out. That said, these preferences are necessarily based on the actual availability and quality of family child care and center-based care. As discussed below, high quality family-based child care should be an option for families.

- The array of existing center-based programs suggests that using it as a model for expansion would provide both states and parents with a diverse range of early care and education options. More than half (52 percent) of center-based programs are not-for-profit, 32 percent are for profit and around 16 percent are run by government agencies.[573] Around 3 in 10 centers serve 75 or more children, with relatively equal shares enrolling smaller populations of children.[574] And across the country, centers are sponsored by both public and private entities, including social service and community-based organizations; colleges and other institutions; faith-based groups; and state and local governments.[575]

- Focusing access in centers is also more administratively efficient and cost-effective from a regulatory point of view. It is relatively less time intensive and costly to monitor and evaluate a more limited number of providers. Even though around three-fourths of all children ages 0-5 subsidized under the CCDF were in center-based care in FY 2014, child care centers made up only 23 percent of all providers receiving CCDF funds (86,574), while 77 percent—283,032—were home-based providers.[576] This dispersion makes it time-consuming and costly to inspect and assess providers.

- Building out the early care and education infrastructure primarily through centers should be complemented by using services in other settings supported by CCDF and related funding. For example, states could use other funds to expand parents' access to care through networks of family child care homes that meet the IOM standards and that could be affiliated with center-based programs to help provide ongoing training and care coverage. In particular, as the use of center-based care is facilitated through the proposed expansion, vouchers could be used to target families in need of care during nontraditional hours or in remote areas through home-based care or other arrangements. Research indicates that family child care on average offers less instructional support than center-based programs, but these averages mask substantial variation. So long as the same high quality standards for center-based programs are met, family child care has a role to play in an expanded child care infrastructure, and the very policy strategies proposed in this report can help raise family child care quality.

- Finally, financing centers through publicly funded contracts, especially multi-year contracts, would improve fiscal stability and make it easier for centers to project revenues and plan around enrollment, rather than through the current system of individually-based vouchers or certificates.

Because the intention is to use public investment to build out a stable and reliable ECE infrastructure, the proposal is not strictly child or family-based, in contrast to other expansion proposals. Instead, the federal government would fund the staffing of center-based "classes" at uniform wage levels for staff based on their educational attainment that will promote equity across programs, as follows:

1. Using Census data and estimates of eligibility based on microsimulation models for children ages 0-5, the federal government would project the number of classrooms and workers necessary to staff them for each state, based on the criteria outlined below.

2. States would then certify the share of these classrooms that the state is prepared to sponsor, and would submit a plan to the federal government regarding its commitment in order to receive corresponding funding from the federal government to cover the staffing costs.

3. States would identify the centers in which the classrooms would be based using an open, competitive process. Selected centers would receive funding via public contracts with the state (or at state election, with a local government entity) that would cover the total costs involved in providing care, derived from federal, state, local and other resources.

    a) The number of classrooms and staffing eligible to be supported would be determined by the federal government as follows:

Staffing: While high-quality care is defined by a complex mix of factors, research shows that staff qualifications and compensation, along with group size and caregiver/child ratios, are among the most significant drivers of quality.[577] The proposal seeks to support those elements, recommending that each class be staffed by one teacher aide (high school degree or less), one teacher's assistant (some college or associate degree) and a half-time lead teacher with a bachelor's degree, who would be shared with another class. Provider-child ratios and maximum class sizes would follow the recommendations of the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education.[578]

FIGURE 44. Recommended Classroom Provider-Child Staffing Ratios

	AGE			
	< 12 months	13-35 months	3 years	4 to 5 years
Provider-to-Child Ratio	1:3	1:4	1:7	1:8
Group Size	6 children	8 children	14 children	16 children

Source: Provider-to-Child Ratios and Group Sizes recommended by the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education. "Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs." American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education, University of Colorado, 3rd Edition, 2011. Available at http://cfoc.nrckids.org/webfiles/CFOC3_updated_final.pdf.

See also "Standard 1.1.1.2: Ratios for Large Family Child Care Homes and Centers." Available at http://cfoc.nrckids.org/StandardView/1.1.1.2.

The staff sharing arrangement is designed to ensure that young children of all ages are exposed to the added enrichment provided by a highly-qualified teacher for at least half of every day, as well as to maximize the number of entry- and mid-level jobs to be created while adhering to recommended limits on total class size. This structure would also provide flexibility for staff time to be available for onsite coaching or other professional development inside or outside the classroom while maintaining recommended child-teacher ratios. For example, during the four-hour period in which a lead teacher is in a class, an aide or assistant can potentially devote some of that time toward clinical or other requirements necessary for advancement.[579]

Limiting the number of bachelor's level staff required also recognizes the reality that given existing staffing criteria in many states there may be fewer bachelor's level early education teachers available, at least initially.

Compensation: Staff salaries would be set in accordance with the wage goals outlined in section #1 above—$15.00 an hour ($31,200 annually) for those with a high school degree, $17.70 ($36,816 annually) for those with an associate degree, and $24.82 an hour ($51,640 annually) for bachelor's level teachers. A supplement of 25 percent of salary costs would be provided to cover expenditures for benefits. Salary and benefit costs would be covered by federal investments.

Since approximately 80 percent of the cost in a child care program is for payroll and related expenses,[580] and on average, 86 percent of all center-based staff are either teachers or caregivers,[581] federal investments would cover the overwhelming share of costs of the expansion. Covering staffing costs would also eliminate the financial incentives for centers to prioritize offering care for relatively older children, since the typical per child cost of providing infant or toddler care is higher given lower permissible teacher-child ratios.

Apart from the federally financed staffing structure, other key components of the expansion would be designed to promote the financing of high-quality care that meets families' needs:

- **Operation**: Subsidized classes would operate full-time, full year to accommodate the needs of working parents and to maximize the benefits to young children. States would also have the flexibility to support classrooms in centers that provide extended hours to serve families working nontraditional hours. Currently, about 3 in 10 programs offer fewer than 30 hours per week of care, with those centers serving 3-5-year-olds least likely to be open for extended hours.[582] Of the 57 state preschool programs serving 3- and 4-year-olds across 42 states and the District of Columbia, 23 serve children for fewer than 4 hours a day, 22 operate through the school day, and only one offers an extended day[583]. Thirty-eight are in operation only for the duration of the academic year.[584] Not only does this pose a challenge for working parents, but program duration has also been shown to affect child outcomes. Research shows that more daily instructional time can yield bigger benefits for children, with programs that offer "sustained, intensive service" demonstrating lasting gains in academic achievement.[585, 586] For example, an evaluation of the random assignment of 4-year-olds to matched preschool programs in a high-poverty school district—one offered for 8 hours a day for 45 weeks and another for 3 hours a day for 41 weeks—found that participants in the full-day, full-year program demonstrated significantly larger gains in both vocabulary and math skills over several years.[587]

- **Copayments**: States would have the flexibility to set parent copayments for care up to a maximum of 10 percent of families' household income. Copayments would be paid to the state (or local) government agency administering the program to help fund the state's share of costs related to the expansion. This removes the variability and instability that results from centers having to rely on parent copayments as a source of revenue, reduces incentives for centers to prioritize access to relatively higher income families, and eases their administrative burdens. Also, removing center staff from the role of "collection agent" would eliminate a negative dynamic that undermines the formation of positive and trusting alliances between ECE staff and parents that are so critical to children's early care experiences. The centralized collection and distribution of tuition funding will also help to promote equity across centers.

- **Cost Sharing:** With the federal investment covering staffing costs, states would assume responsibility for financing the other expenditures associated with the expansion. Some of these would be fixed costs, including facilities-related expenses for rent and utilities, while others would vary depending on enrollment, such as classroom materials or food.

  This leaves states and localities with the opportunity to cover and try to minimize some of their expenses creatively; for example, states could set-aside available public space for new programs, amend zoning requirements to encourage or mandate mixed-use space, or work with developers or employers to identify appropriate facilities. It may also encourage localities to share costs to obtain the subsidized care and local employment benefits from the expansion. Despite the fact that localities enjoy extensive and varied economic development benefits from the availability of affordable early care and education,[588, 589] currently, only

one-fifth of centers report receiving any local funding, while just over one-half (53.7 percent) receive state funding and almost 45 percent report receiving federal funding.[590]

Since only 2 percent of employers report offering payment for child care with vouchers or other subsidies,[591] states and localities could also more determinedly seek employer-based revenue. For example, they could adopt commercial linkage policies or developer impact fees and dedicate all or some share of the revenue to support the provision of early care and education.[592] Recently, states and localities have started to explore exacting fees on employers that pay low wages that impact families' inability to afford child care and other services and increase the demand for publicly funded supports.[593]

To ensure that state and local funding is directed to augment existing services, funds used to support the expansion program would not count toward state MOE requirements, and states would be required to maintain their current levels of funding on other ECE activities.

This arrangement also provides states with flexibility to tailor payments to centers based on their actual costs. This would also encourage states to consider in the competitive grant or contract process those centers that may be a good value because their facility or other fixed costs are limited or subsidized, or because of administrative or other efficiencies, in the competitive grantmaking or contracting process.

At the same time, delineating between fixed and per child costs—such as those for food or materials—preserves a connection between enrollment and center revenue that would incentivize centers to market and register eligible children, without the risk of enrollment efficiency—that is, filling enrollment to capacity—significantly jeopardizing their financial viability.[594] In any case, the feature of separating out labor costs helps to remove a source of income insecurity for workers, who under an enrollment-based reimbursement system might otherwise face schedule reductions (and the resulting loss of income) if enrollment or attendance dips.

As a starting point, implementation of the proposed ECE expansion could adopt the federal eligibility criteria currently used under CCDF to extend center-based early education to those children ages 5 and under who are eligible but not currently being served. The U.S. Department of Health and Human Services already tracks CCDF eligibility and enrollment data, and this measure could help prioritize the expansion to lower income families who because of their employment or participation in school or training are most urgently in need of assistance. An estimate of the cost—$58 billion—and early care and education staffing positions—1.24 million—that would be created under this framework is outlined in Exhibit F1, using the latest available CCDF data.

However, because we do not know the current care arrangements of CCDF-eligible children, use of CCDF data alone potentially compromises job creation estimates, since some eligible but unserved children are likely to be in formal care. Alternatively, to illustrate the number of jobs that could be created under this structure and to estimate the short-term fiscal impact that would result from public investments, we considered the opportunities posed by expanding access to children ages 0-5 with incomes below 200 percent of the federal poverty level who are not currently in a regular care arrangement, based on data from the 2011 SIPP panel. This includes low-income children whose parents are employed, unemployed, in school or training, or out of the labor force. At full enrollment of this cohort, the program cost would be approximately $62 billion and approximately 1.3 million jobs would be created, as outlined in Appendix A. We estimate that this program could generate around $70.9 billion in fiscal impact (see Appendix A and Exhibits G1-3 and H1-3).

#3. INVEST IN WORKFORCE DEVELOPMENT AND CAREER PATHWAYS

While improving compensation would play a key role in enlisting and maintaining workers into the ECE sector, establishing a system of professional development that supports recruitment, retention and advancement of early care and education staff is also critical to successfully expanding access for young children. The staffing structure outlined in our proposal—specifically the goal to have every classroom attended at least half time by a bachelor's level head teacher—has two purposes. The structure aims to ensure that young children benefitting from the expansion receive high-quality care, and to reasonably estimate the costs of recruiting and retaining qualified staff.

WHAT IS COMPETENCY-BASED TRAINING?

In the worlds of both early care and education and long-term care, there is considerable focus on competency-based training as the foundation for workforce development. Competency-based training is an approach to professional development that identifies the essential skills, knowledge, and abilities that workers are expected to acquire and implement successfully to fulfill the demands of their given occupation. Well-defined competencies are used as the basis for educational curricula and ongoing training and reflect the practices needed to provide high-quality care.[595]

This is a departure from current requirements; 31 states require a high school diploma or less for child care center lead teachers and 41 states require a high school diploma or less for regulated family child care providers.[596] However, the relationship between teacher education and preparedness, high-quality programming and beneficial child outcomes[597] has led to expanded requirements for teachers in some publicly funded programs, notably Head Start and publicly funded prekindergarten, to hold bachelor's degrees: 33 of the 57 state pre-K programs now require bachelor's degrees for public prekindergarten teachers.[598] At least 15 hours of in-service training per year are required for pre-K teachers in 43 states.[599]

There is considerable debate in the early care and education world about the qualifications that make someone a "high-quality" teacher—including educational attainment, credentialing, and other specialization in the development of young children, along with temperament and other factors—and how they are correlated with high-quality care.[600] There is general agreement that outcomes follow quality and that model programs that employ teachers with high levels of education and specialized early childhood training have produced the largest long-term economic gains. However, the research is more mixed with regard to the "nature and dosage" of training required to become a "high-quality" teacher.[601] Nevertheless, in their 2015 report, the IOM and National Research Council outlined comprehensive recommendations designed to align the capacities of the ECE workforce, their employment settings, and financing and policy structures with expert understanding of children's early development and the essential competencies needed to support it.[602] In particular, it stressed the importance of ensuring that early care and education professionals understand, among other things:

- children's cognitive, social and physical development;
- the importance to children of establishing and nurturing strong relationships that support their learning;
- the factors that can promote or impede children's development;
- appropriate and effective forms of engagement with diverse populations of children to encourage their positive development and behavior;

- age-appropriate educational content and concepts, and how children acquire proficiency in them, including techniques for learning that are culturally-sensitive and effective forms of assessment; and
- how to create a stable and nurturing classroom environment.[603]

In addition to strengthening and unifying a set of competency-based qualifications for all of those who work with young children, the IOM report recommended the development of "comprehensive pathways" to facilitate the institution of a bachelor's degree requirement for all lead educators.[604] To support achievement of this objective, the development of initiatives to evaluate the current competency of staff and provide multiple avenues for their professional advancement, including both practice-based activities and access to a spectrum of higher education programs, were recommended.

The expansion proposed here could be phased in to provide the opportunity to form a corps of head teachers with bachelor's degrees and specialization in early childhood education, as the IOM report recommends, as well as qualified assistants and aides. The passage of time alone will not magically produce a body of qualified staff. Rather, professional development opportunities must be created along the continuum of knowledge, skills, and practices that characterize high-quality programs to create a pipeline of workers ready and willing to fill newly-funded positions.

Further, ensuring that diversity in the ECE workforce mirrors the increasing diversity of the population of young children in need of regular, high-quality care is critically important across all levels of ECE staffing. While sensitive and stimulating "high-quality" care has been shown to be consistently and positively related to the development of cognitive and social skills for children irrespective of whether children and their teachers are ethnically matched, there is some indication that children's social skills may be even more enhanced when families and caregivers are from the same cultural background.[605] Examination of child-teacher interactions also suggests that children and caregivers with a shared ethnic/racial background form more secure relationships; being from the same cultural community seems to prompt attachment, which is essential to children's positive development.[606] This is especially important with respect to linguistic competence in serving families who speak a language other than English, both to ease children's transition to care outside of their families and to promote parental engagement. Evaluations of the teaching of at-risk children also suggest that building the share of minority staff can help children of color navigate issues of poverty, racism, and immigrant bias and to set high expectations for their achievement.[607]

It is critical, then, that the ranks of newly-created bachelor's level as well as entry- and mid-level aide and assistant positions provide employment opportunities to a diverse group of workers. Crafting a job creation strategy that recruits new caregivers from the communities of the children to be served, and helps current caregivers of color advance to lead teaching positions, will help to ensure that care is culturally sensitive and responsive, and that children are surrounded by recognizable role models. Attention to this objective can also improve employment possibilities for unemployed limited English-proficient workers with appropriate training and continuing education.

Under the CCDF, states are required to adopt training and professional development standards to promote the health, safety, and development of young children in accordance with current research and best practices.[608] But while the 2014 CCDF reauthorization now requires states to set aside 9 percent of CCDF funds (from 4 percent previously) within five years to improve

program quality and authorizes professional development expenses as a qualified use of those funds, the limited (and uncertain) funding increases that Congress has adopted make it unlikely that these will prove to be a significant vehicle for substantial change in the status of providers, especially given the potential costs associated with other requirements established by the reauthorization.[609]

Additional resources dedicated to training and professional development of ECE staff will be needed to support education for current staff to preempt the pitting of quality of programming against access for families, as well as to support new workers hired through the expansion.

#3a. Fund Pre-service Training for New Workers

As the expansion is undertaken, and as current teaching aides and assistants advance along a career path to fill higher paying positions as recommended in the following subsection, it will open additional entry-level jobs for new paraprofessional workers, including those with a high school degree or less, as well as for bachelor's level educators. As the demographics of the current ECE workforce demonstrate, ECE jobs have typically been undertaken by low-income and minority workers; ECE staff are disproportionately women, and women of color.[610] Maintaining access of these populations to jobs created through the expansion will help to preserve racial, ethnic, and linguistic diversity in the ECE workforce. However, to support these workers new to the field, investments will be needed in both competency-based pre-service training and coaching and mentoring.

Intensive pre-service training could be structured to reflect research from professional development programs in the K-12 sphere that suggests that programs with substantial time commitment over a period of days or weeks, targeted to teacher's instructional practice and tied to program curriculum, are most likely to improve teacher practice and student outcomes.[611] The Department of Defense system, where new staff with only a high school degree undergo a mandatory 40-hour orientation, after which their salaries increase by 9 percent, could be a model for providing education and training as individuals enter the ECE workforce. They are supervised and trained on an ongoing basis by their center director and a "training and curriculum specialist" who is required to have a bachelor's degree in early childhood education or a related field or its equivalent.[612] The Child Care Aware (as the former National Association of Child Care Resource and Referral Agencies) has also developed an Initial Pre-service Training for Entry-Level Child Care Providers, an interactive, 40-hour online training. In a five-state pilot with 663 providers from both centers and family child care programs, participants showed significant knowledge gains on every one of 44 training modules, regardless of setting or their previous level of early childhood education.[613] Almost 9 in 10 participants felt that it was very effective as a starting point for those new to working with children, and 71 percent recommended that other providers complete the training.[614]

Providing financial support for coaching and mentoring will help build competency and promote retention once workers are engaged in their jobs. Ongoing professional development in ECE has been shown to be most effective when it includes skilled coaching from a well-trained mentor.[615] And early research has shown coaching to be connected to improved student-teacher interactions, reduced teacher burnout, and reduced attrition in the field.[616] However, currently only around half of center-based programs report offering on-site coaching or mentoring.[617] Building a work environment that supports effective teacher practice would include providing paid opportunities for teachers within centers to meet together, learn from experienced mentors and plan, as teachers themselves have identified as critical.[618]

#3b. Fund Training and Professional Development for Incumbent Workers

Establishing a corps of staff with the knowledge, competencies, and disposition to provide high quality care should draw on the existing ECE workforce. More than half of both center-based and listed home-based providers have more than 13 years of experience, and fewer than 1 in 4 (23 percent) center-based teachers and only 16 percent of listed home-based teachers have fewer than five years of experience.[619] Many have already been engaged in professional development activities; more than 8 in 10 center-based staff had participated in a professional development workshop within the last 12 months, while almost a third also participated in either college courses or coaching.[620] Three out of 4 listed providers had participated in workshop for professional development within the last 12 months, while around a third reported taking college courses or receiving coaching.

Structuring and financing opportunities for advanced education and training for current workers—those working as aides and assistant teachers, or lead teachers who have not yet attained a Bachelor of Arts and/or state certification—will help develop an experienced, well-qualified supply of teachers with the academic and professional background to lead new classrooms. This will entail supporting multiple pathways to advanced credentials and degrees, including more teacher preparation programs and scholarships and other financial assistance. More than two-thirds of ECE centers (68.3 percent) reported offering financial incentives to their staff for off-site training or college courses.[621] However, only half (49.6 percent) of center-based teachers and caregivers reported receiving financial support for professional development.[622]

Providing access to competency-based training and education to the current workforce is especially important to ensure that workers of color can attain the credentials necessary to assume positions as assistants and especially as lead teachers. Currently, ECE staff of color in center and school-based programs are less likely to have a post-secondary degree or credential,[623] and immigrant ECE workers—a majority of whom are Limited English Proficient—are five times more likely than native ECE workers to lack a high school diploma.[624] As the Migration Policy Institute has urged, ensuring that professional development programs incorporate an English for Speakers of Other Languages component where demographically appropriate will be necessary in order to benefit LEP workers, and for the ECE expansion to preserve diversity in linguistic and cultural competency.[625]

State efforts to promote professional development and compensation have largely focused on providing scholarships and other financial support to staff who engage in and attain additional credentials and salary bonuses to staff to promote degree attainment and retention. For example, through the T.E.A.C.H. Early Childhood® Scholarship Project, which was created in North Carolina in 1990, 24 states and the District of Columbia now offer educational scholarships financed with a combination of public and private funds for early childhood staff to attain advanced credentials and associate and bachelor's degrees.[626] The program is structured around a three way contract between the worker/recipient, their sponsoring child care employer, and the T.E.A.C.H.® administrative agency, which is a non-profit organization. Recipients may receive scholarships to cover tuition, books, and travel expenses on a cost-sharing basis designed to help them avoid educational debt, along with the support of a counselor to promote their progress in the program.[627] In return, they are required to complete a defined number of credit hours toward their credential or degree within the scholarship year. The sponsoring program is required to offer paid release time to the recipient, and to enhance recipients' compensation through a bonus or wage increase when they complete their educational requirement.[628] Recipients are also contractually

obligated to remain at their sponsoring employer for a specified period of time, typically a year, after completing their contracted educational commitment.[629]

A second, complementary initiative that has been adopted in five T.E.A.C.H.® states, the WAGE$® program, is designed to promote staff retention by providing semi-annual salary supplements to teachers, directors and family child care providers that are tied to their education level and tenure.[630]

In 2014-2015,T.E.A.C.H.® programs provided $28.6 million in scholarships to 16,071 recipients, half of whom were first generation college students and 46 percent teachers of color.[631] During the same year, 5,788 early care educators received wage supplements from the WAGE$® program, totaling $11.1 million, an average of $962 per recipient; 61 percent of them were teachers of color.[632] While job turnover rates are low for those enrolled in the T.E.A.C.H.® program, averaging 4-6 percent, the limited support and wage incentives associated with degree attainment across the workforce may affect participation and the program's impact over the long-term. A longitudinal study of the T.E.A.C.H.® program in Pennsylvania, for example, found that 43.5 percent of recipients withdrew after executing their first contract, and only one-third of scholarship recipients had either graduated or were still in the program at the end of the fifth year.[633] The T.E.A.C.H.® and WAGE$®programs provide important recognition of the impact of low salaries on turnover and need for financial support and incentives to promote educational attainment and retention, but to get to scale and to ensure that early care educators have the support they need to succeed, investments in workforce development must grow and be structured to meet the distinct needs of the existing caregiving workforce.

Additional resources are needed to increase the capacity of professional development that is available,[634] as well as to reduce barriers—particularly financial barriers—to ECE staff to increase access to training and education. Financial assistance is among the supports most likely to decrease attrition among nontraditional students;[635] like others returning to school, the majority of ECE staff who may wish to pursue advanced degrees or credentials likely need to continue to work full-time while in school and may also be juggling care responsibilities for their own families. In particular, the requirements for student teaching involved in pursuing and obtaining a bachelor's degree and certification can be hard for them to schedule and finance.[636] While these factors put them at risk of dropping out, supports that help alleviate financial burdens, address logistical challenges and provide academic and social assistance can promote their success. Making classes accessible—in the evenings and weekends and in locations accessible by public transportation—has also been linked to increased success in higher education.[637] Distance-learning strategies and use of interactive technology through online instruction and webinars, for example, could help reduce barriers, but may require helping both instructors and students/staff acquire competence and confidence in their use of technology.[638]

In addition to more traditional forms of academic support like tutoring or technology skill-building classes, learning communities—commonly referred to as cohorts—in which students move together as a group through their coursework have also been found to promote success, particularly because many ECE staff may be years out from participating in formal education. In a follow-up survey of participants in cohort-structured bachelor's programs, more than 95 percent initially identified the support and encouragement provided by their peers as fostering their early classroom success, and 85 percent of those who graduated reported it as "extremely important" to their attainment of their degrees.[639] Cohort participants posted a graduation rate more than double that of typical students transferring from a two-year to four-year program.[640] Building out center-based care can help create natural cohorts to engage in professional

development; likewise, encouraging home-based providers to affiliate with centers to establish networks of formal providers would also foster this kind of peer support.

Finally, expansion of the sector and commitment to providing opportunities for staff to upgrade their education and skills will also require more graduate-level professionals to serve as teachers and coaches. However, there are not enough programs to satisfy the current demand for graduate degrees in the field, and one recent assessment found a shortage of qualified faculty at the associate, bachelor's and graduate levels.[641]

LTSS Policy Recommendations: Public Investments Can Retain Existing Direct Care Workers and Create New Jobs by Increasing Families' Access to Formal Long-Term Care

Demographic pressures and the desire for home and community-based services signal an expanding need that could support substantial continued growth of the home health sector. The home care industry is already the fastest-growing sector of the American economy.[642] From March 2015 through March 2016, the home health care segment of the health care sector experienced the fastest rate of growth, 5.8 percent, adding 74,900 jobs. Since December 2007, home health care has grown an annualized 4.9 percent, greater than any other setting, and comprising an additional 453,000 jobs since that time.[643]

#1. EXPAND PUBLIC FINANCING FOR LTSS

Enhanced public support is necessary to support true demand for paid care that can meet the needs of older adults and their families and to realize the opportunities those needs present to create good, new entry-level employment for those who are out of work. The Bureau of Labor Statistics (BLS) projects that home care jobs will be among the fastest growing occupations in the future, but this will only happen if (1) the growing need for in-home assistance is converted into actual market demand by providing financial support to increase access to paid care, and (2) investments are sufficient enough and structured to actually improve the quality of home care jobs to make it possible to retain current workers and recruit new ones. According to BLS projections, this could lead to more than 458,000 new personal care aide jobs by 2024 and another 348,000 home health aide jobs, increases of 25.9 percent and 38.1 percent, respectively, over their 2014 levels.[644]

A study that projected the demand for long-term care workers found that if current utilization rates remain the same, an additional 1.2 million home health aides and personal care aides would be needed by 2030 to provide long-term services and supports to older adults.[645] However, it is clear that most older adults who will need and want formal assistance do not have the financial resources to drive increasing demand on their own. Additionally, unless the low wage and other job quality issues are addressed, continued turnover in the direct care occupations will undermine access to care and the quality of services that they receive.

#1a. Establish a Universal Catastrophic Long-Term Care Insurance Program as a Component of or Companion to Medicare

In 2013, the Long-Term Care Commission failed to come to consensus around a set of financing recommendations to address the LTSS crisis,[646] and the CLASS Act has demonstrated the unfeasibility of a voluntary program.[647] As a result, there has been growing acknowledgment that the unpredictability and distribution of need for long-term services and supports call for a risk-based solution financed through a combination of public and private funds. In order to create a

system that is affordable and sustainable, recent recommendations to improve the financing of long-term care have called for the adoption of a universal catastrophic insurance program.[648, 649] This solution would ease the burden on those who experience a need for catastrophic care and help provide clarity to families about the levels of public support that will and will not be available. It could also help alleviate states' Medicaid costs, while maintaining the program's essential role as a safety net for those who will not be able to afford to supplement the coverage provided by the universal system with either private long-term care insurance or personal assets. A federalized long-term care insurance program would also provide much-needed uniformity regarding services and payment levels in contrast to the current patchwork of support across the country under the current financing schemes.

#1b. Expand Federal Incentives for Medicaid-Funded Home and Community-Based Long-Term Care

In the interim, the federal government should build on existing efforts that have incentivized states to expand access to LTSS and rebalance service delivery between institutional and home- and community-based care, particularly by offering enhanced federal matching funds. As Home and Community-Based Services (HCBS) are generally less expensive on a per patient basis than institution-based care and can help prevent a need for more intensive care, these efforts may achieve cost savings over time.[650]

Congress has recently offered enhanced federal matching funds in various ways to encourage states to increase access to HCBS; it should continue to do so. For example, the Money Follows the Person (MFP) demonstration's enhanced federal matching funds helped over 52,000 Medicaid participants nationally transition from institutions to the community from 2008 to 2015.[651] The Balancing Incentive Program (BIP), another time-limited grant program, provided an enhanced federal match to 18 states implementing structural reforms to increase HCBS access.[652]

Enhanced federal matching funds could be used to help states address existing waiting lists for LTSS. Under Section 1915(c) waivers, states are permitted to cap enrollment to contain costs; some, but not all, maintain waiting lists that provide an indication of need. As of the latest data available from 2012, over 133,000 people were on waiting lists for HCBS coverage under Section 1915(c) waivers for the aged or the aged/disabled. Providing an enhanced federal matching rate to serve individuals deemed qualified to receive services under states' programs—over and above their present caseload levels, provided that they maintain waiting lists of those eligible—could encourage more states to maintain waiting lists and provide better information to estimate the levels of care needed.

#2. ESTABLISH AND FINANCE A WAGE FLOOR FOR FEDERALLY FUNDED HOME CARE WORKERS

Expanding Medicaid and establishing a universal long-term care insurance program either separately or as part of Medicare will help older adults afford more formal care. However, the program design and financing must account for the factors that affect recruitment and retention of the long-term care workforce, particularly wages and benefits. Even a more comprehensive financing solution will not completely serve older adults' needs if these barriers to building the supply of formal care workers are not addressed.

The availability of benefits, health insurance, and training are important predictors of job satisfaction among direct care workers.[653] And the converse is also true. Home care workers' dissatisfaction with wages and benefits largely drives overall dissatisfaction with their jobs; around three-fourths of agency-based home health aides who were somewhat or extremely dissatisfied with their salary and benefits also reported similar levels of dissatisfaction with their jobs overall.[654]

Dissatisfaction is not the same as departure, of course. But evidence suggests that the same factors drive whether a home care worker stays in or leaves a job. In a study predating the adoption of the Affordable Care Act, the availability of health insurance benefits was the single most important factor after commitment to clients that attracted and retained workers to the home care field.[655] Higher wages, consistent scheduling and sufficient work hours, and transportation assistance are also significantly associated with reduced turnover among home care workers.[656] The annual worker turnover rate for consumer-directed home care workers in San Francisco fell from 61 percent to 26 percent when their hourly wage doubled from $5.00 to $10.00 and was accompanied by the provision of affordable health insurance.[657] A $1.00 per hour increase from the mean wage rate of $8.85 increased the probability of a worker remaining in the workforce for a year by 12 percent, while adding health insurance and dental insurance each increased the probability of retention by 17 percent.[658]

Like other low wage employees, home care workers' job attachment is driven by labor market conditions and competitiveness. A study of home care workers in Maine found that those who left the field tended to be younger and have higher levels of education, and lived in areas with lower unemployment rates.[659] Those who departed left for jobs paying higher wages and offering more hours.[660]

The home health care services industry is overwhelmingly financed by government support: in 2014, 72 percent of revenues came from government sources, with 16 percent funded by private insurance and 7 percent through out-of-pocket payments by patients or their families.[661] Not surprisingly, research suggests that home care agencies are responsive to financing conditions, with agencies entering—and exiting—the market depending on payment structures and levels.[662] While Medicare and state Medicaid programs establish reimbursement rates for provided services, there are neither federally mandated specific living wage requirements for home care workers in these programs nor federal limits on profits, overhead, and other indirect costs.

Medicaid reimbursement rates vary by state, program, and other factors. This variation is notable when compared to the average cost of care on the private-pay market in each state. Figure 45 provides an example of this comparison using limited publicly available data on Medicaid Home Health State Plan Services provider reimbursement rates for those states where reimbursement is made on an hourly basis. In the private-pay market, where the median hourly billing rate for home health aide services is $22.00, agencies directed around 60 percent of revenues to direct care expenses, and realized gross profit margins of 38.3 to 40.5 percent.[671]

FIGURE 45. Comparison of Medicaid Provider Reimbursement Rates to Private Home Health Aide Rate, Selected States

STATE	MEDICAID HOME HEALTH STATE PLAN SERVICES PROVIDER REIMBURSEMENT RATES, 2014 ($)[672]	HOURLY RATE OF PRIVATE HOME HEALTH AIDE SERVICES IN STATE (GENWORTH COST OF CARE, 2015)[673]
AZ	$9.15	$20
CO	$33.21	$22
CT	$24.64	$22
DC	$17.90	$22
DE	$30.80	$22
IN	$20.71	$19.50
MA	$24.40	$25
NE	$21.36	$23
NH	$23.56	$24
NJ	$25.87	$21.20
NY	$29.76	$23
OH	$12.00	$19.82
SD	$32.32	$22.73

Improved transparency and controls are needed to ensure that federally funded home care workers earn a living wage and to promote the allocation of agency revenues to fund workers' wages and benefits. There are tools and standard practices available to the federal government that could improve wage rates and establish reasonable provider profits. For example, it is standard in federal grantmaking to establish a reasonable negotiated indirect cost rate as a share of modified total direct costs.[674] CMS could explore whether current payment rates may be able to accommodate higher wages, such as the $15/hour floor, while incorporating the necessary additional compensation and indirect costs associated with providing HCBS. In states where this is not the case, the $15/hour wage floor would require increased reimbursement rates and additional federal funding, as discussed below.

CMS is currently exploring similar questions regarding Medicaid reimbursement rates and home care workers' wages. In a November 2016 Request for Information (RFI), CMS indicated interest in considering steps it might take to address rates paid to home care providers. The RFI on *Federal Government Interventions to Ensure the Provision of Timely and Quality Home and Community Based Services* asked, "What are specific steps CMS could take to strengthen the HCBS home care workforce, including establishing requirements, standards or procedures to ensure rates paid to home care providers are sufficient to attract enough providers to meet service needs of participants and that wages supported by those rates are sufficient to attract enough qualified home care workers?" The RFI also asked specifically, "Should CMS expand its ratesetting approval authority to support provider infrastructure and the HCBS workforce?"[675]

The federal government should use its leverage as a prime financer of Medicaid, the industry's dominant funder, to establish a wage and benefits floor for workers on Medicaid contracts, providing additional funding as needed.[676] To assess which states require additional financing to support the mandate, it should invite states to demonstrate that such action would entail

increasing provider rates to preserve access to care and maintain delivery of services to the current caseload. In those cases where current provider reimbursement rates are below the $15/hour wage goal, or where states establish that they cannot absorb the increased labor cost without increasing payment rates in order to avoid reductions in services, the federal government would finance 100 percent of the increase.[677, 678]

Necessary additional federal funding would be designated as a wage pass-through, dedicated to be used solely for increased wages and benefits. The National Employment Law Project has estimated the cost of raising home care wages to a minimum of $15/hour to cost $16.5 billion annually, generating a $3.8 billion to $6.5 billion increase in GDP and indirectly creating 29,000 to 49,500 new jobs outside the home care industry.[679] A proposal from the Center on Wisconsin Strategies (COWS) that includes raising the wages of an estimated 5.5 million workers in both the early care and education and home care sectors to $15/hour and providing a "meaningful benefit package" including health care and retirement benefits estimates the total cost of these workforce improvements at $110 billion.[680] Because workforce data is not disaggregated by workers whose earnings at least in part are supported with federal funding or by their work schedules, we use the total estimated workforce for the home health aide occupation in the state calculated at full-time employment to derive a rough estimate of the potential cost of a federal pass-through for states that use hourly home health provider reimbursement rates.[681]

Given the success of minimum wage campaigns around the country—campaigns in which home health care workers have engaged—establishing a federally funded wage pass-through would help many states avoid any reductions in services as labor costs increase, and will enhance the competitiveness of home care occupations as wages improve in other low wage sectors. Some states have already acted to ensure that payment rates are used to support direct-care providers, in order to address labor shortages and improve the financial well-being of home care workers.[682] In Washington, voters approved a ballot initiative that established a wage pass-through requirement on home care agency vendor rates regarding funding increases that had been negotiated with the home care workers' union.[683] Provider agencies in Illinois are required to submit a cost report showing that no less than 77 percent of total revenues from the state are used to support direct worker costs, including wages, benefits and reimbursement for travel time and expenses.[684] More broadly, an executive order in New York now requires that no less than 85 percent of state funding provided for an array of services, including those contracted under the state's Department of Health be directed to provide direct care or services rather than administrative costs.[685]And in 2015, the state of Massachusetts agreed to increase starting pay for 35,000 personal care attendants in its consumer-directed home care program to $15/hour by July 2018 under the terms of their new union contract.[686]

#3. EXPAND SELF-DIRECTION TO HELP ADDRESS WORKFORCE SHORTAGES

Promoting self-direction, also called consumer direction, can be another important way to foster home care worker recruitment. Over a million Medicaid beneficiaries participate in self-directed programs that promote personal choice and control over service delivery in a variety of ways,[687] including allowing participants control in choosing their providers. As the HCBS Advocacy Coalition explains, "Self-direction has proven effective at tapping an otherwise unrepresented labor pool in the home health workforce. Self-directing individuals do not have to rely on agency home care workers and instead often hire friends and family, who may be interested in the job due to the personal relationship they have with the individual."[688] Studies have shown that home care consumers in self-directed programs were more likely to receive paid care than those

assigned to agencies, because with worker shortages in many states, they could hire family members and friends to provide needed services.[689] Furthermore, data from California indicate that in at least some states, workers initially hired through self-directed programs to provide care to family members or friends sometimes continue on to provide home care services to others with whom they did not have a preexisting relationship.[690] Lastly, self-direction can also lead to better pay for workers because the overhead costs are often lower, meaning that a larger share of the funding is available to go towards wages.[691]

The federal government should build on recent progress in expanding access to self-direction options by providing an enhanced federal matching rate to states. The Affordable Care Act established a new state plan option called Community First Choice to provide home and community-based services that allow for self-direction, with an enhanced federal matching rate (a 6 percentage point increase in Federal Medical Assistance Percentage). These incentives have been successful in increasing self-direction options, as at least five states have already implemented Community First Choice.[692] The federal government should expand on this success by enhancing federal matching rates to incentivize self-direction more broadly.

#4. ATTACH LIMITS ON ALLOWABLE COSTS INCLUDING EXECUTIVE COMPENSATION TO MEDICAID FUNDED HOME AND COMMUNITY-BASED SERVICES

As another mechanism to control and direct costs while maintaining care quality, states have also taken the lead on trying to manage profiteering in the industry. Home care is an $88 billion industry[693] dominated by for-profit companies. Of the 12,400 home health agencies that are Medicaid- and Medicare-certified, 80 percent are for-profit.[694]

The top senior care franchises build gross revenues to several million dollars, with gross margins of 30-40 percent;[695] in the private care industry at large, owners report gross profit margins of 38.3 to 40.5 percent.[696] Almost half (49.3 percent) of surveyed home care providers report annual revenues in excess of $1.6 million; the median share of revenue from Medicaid-supported programs was 20 percent.[697] Home care providers reporting receipt of more than 50 percent of their revenues from Medicaid had median revenues of almost $2.5 million.[698] In an evaluation of home health agencies providing Medicare-covered services, for profit home health agencies had an average cost per patient of $4,827—18 percent higher than that of nonprofit organizations, which had average costs of $4,075.[699] For profit agencies had significantly higher profits (defined as surpluses in revenues over expenditures) than nonprofits—15 percent compared to 6.4 percent, and higher administrative salary and benefit expenses as a percentage of total costs—26.5 percent compared to 19.5 percent.[700] At the same time, their quality was rated slightly but statistically significantly lower than that of not-for-profit agencies.[701]

While analysis of provider payments and expenditures is needed to demonstrate whether the same conditions exist in the Medicaid arena, public data suggests that cost controls on business spending could make funding available to better compensate home care workers. Illinois, for example, prohibits consideration of various business expenses relating to overhead and compensation of non-direct service providers in establishing reimbursement rates.[702]

Limiting executive compensation would promote economic equality and provide another potential indirect source of funding. More than a thousand senior care franchise owners surveyed call the home health business "extremely people-dependent," and describe having built the "transient" nature of the staff into a model that creates recruiting, hiring, scheduling, and human resources

challenges.[703]But the low salaries that help drive the transience of front-line home care workers do not extend to C-suite employees. Figure 46 shows the average base salary paid to executives at a set of publicly traded agencies involved in the home health industry. In every agency, the average is double if not triple the federal government's maximum rate of basic pay for the Executive Schedule.[704] With other incentives and stock options, annual compensation to executives generally reaches into the millions of dollars.[705] In response to this situation, New York has limited the use of state-funded assistance for executive compensation to $199,000 a year for those providers that receive average annual funding of more than $500,000 and where at least 30 percent of its total annual in-state revenues are derived from state funds or payments over a two year period.[706]

FIGURE 46. Average Annual Executive Base Salary, Selected Publicly-Traded Home Health Agencies, 2015

	COMPANY				
	Almost Family (AFAM)	Amedisys (AMED)	HealthSouth (HLS)	Kindred (KND)	LHC Group (LHCG)
Average Annual Executive Compensation, Base Salary only (2015)	$419,600	$498,400	$604,400	$663,565	$502,500

Source: Author's calculations from Schedule 14A, Definitive Proxy Statements, March 2016. Almost Family http://almostfamily.ir.edgar-online.com/fetchFilingFrameset.aspx?FilingID=11230272&Type=HTML&filename=ALMOST_FAMILY_INC_10K_20160302

Amedisys: http://investors.amedisys.com/phoenix.zhtml?c=64257&p=irol-SECText&TEXT=aHR0cDovL2FwaS50ZW5rd2I6YXJkLmNvbS9maWxpbmcueG1sP2lwYWdlPTEwODg1ODI4JkRTRVE9MCZTRVE9MCZTUURFU0M9U0VDVEIPTI9FTIRJUkUmc3Vic2lkPTU3#toc88909_15 Health South: http://d1lge852tjjqow.cloudfront.net/CIK-0000785161/c8ed04f4-6ae4-4d6b-a7d0-714937bf8536.pdf

Kindred: http://investors.kindredhealthcare.com/phoenix.zhtml?c=129959&p=irol-SECText&TEXT=aHR0cDovL2FwaS50ZW5rd2I6YXJkLmNvbS9maWxpbmcueG1sP2lwYWdlPTEwODU4NTA4JkRTRVE9MCZTRVE9MCZTUURFU0M9U0VDVEIPTI9FTIRJUkUmc3Vic2lkPTU3

LHC Group: http://files.shareholder.com/downloads/LHCG/2223179690x0x889278/323F8C55-489E-4644-A7D2-4FC3896B3DE0/proxy_188411_003_LHC_Group_Web_BMK.PDF

#5. PROMOTE RECRUITMENT, RETENTION AND ECONOMIC MOBILITY THROUGH WORKFORCE DEVELOPMENT

Retention of existing home health care workers and recruitment of new ones is critical to promoting the well-being of older adults and their families, and can help create new job opportunities for those who are unemployed or out of the labor force. While raising wages and improving benefits will make home care a more attractive occupation for both existing and new workers, additional public initiatives and investments can also address other impediments to recruitment and retention.

#5a. Standardize and Finance a Strong Pre-service Training Infrastructure to Support New Home Care Workers, Improve Quality of Care, and Reduce Turnover

Training for direct-care workers significantly affects job quality—with strong associations between the intensity and quality of training with job satisfaction, retention, and the quality of care. Training not only helps prepare home care workers to meet more complicated health needs of their clients, but also helps them evaluate and make sound decisions for patients and to develop problem solving and communication skills that improve their effectiveness and job satisfaction within their organizations.[707] These benefits are becoming even more critical as the desire to avoid institutional care requires home care workers to deliver more skilled care to clients with more complicated needs.[708] Recent evidence demonstrates that training home care workers is also associated with better care, stronger health outcomes and at lower costs through reductions in hospitalizations and use of emergency services.[709]

Providing training is also a way for agencies to begin to build strong personal relationships between workers and supervisors and demonstrate the kind of personal support that is critical to workers' desire to remain on the job.[710] Importantly, positive feelings regarding the availability of organizational support can help mitigate other personal stressors that impact job satisfaction.[711]

Yet too few home care employers invest in quality training for their workers, and the minimal, if not non-existent, training requirements currently attached to federal financing do not encourage them to do more. Currently, there is no minimum federal training requirement for personal care attendants in Medicaid-funded programs, and minimum training requirements vary widely between states and between programs within states.[712] In an analysis of state personal care aid (PCA) training standards, only four states were found to have implemented rigorous and uniform standards across their Medicaid-funded programs; of the remaining states, 45 percent had one or more programs with no training requirements, and 22 percent of states required no training in any of their programs.[713] Home health aides and certified nursing assistants (CNAs) who work at Medicare-certified agencies are required to have 75 hours of training, 16 of which must be clinically supervised, and pass a competency test.[714] Over two-thirds of states (34) and the District of Columbia do not require more than the minimum standard.[715]

Despite the limited and variable training requirements in place across the states, more than four-fifths (83.9 percent) of home health aides working in home health or hospice agencies had received initial training. The prevalence of initial training was higher among those ages 35-44 than among younger aides (25-34), and among those with less than a high school diploma or GED (96.1 percent).[716] Yet along with improved pay, benefits, and scheduling, access to training is a significant predictor of job dissatisfaction, and direct care workers express a desire for better content-based training.[717]

Establishing more extensive training standards for Medicaid-financed services, especially those provided by personal care attendants, and providing funding to achieve them, would help ensure that workers are prepared to deliver high-quality services to patients. Requirements for training in consumer-directed programs should be carefully considered; it may be appropriate to limit training requirements for workers in consumer-directed programs, while ensuring access to training if desired, in the interest of maintaining consumer control and autonomy.

Including pre-service training as a reimbursable Medicaid expense, as it is for CNAs in institutionalized care, either as part of administrative spending or as part of payment provider rates, would help support meeting new training mandates; alternatively, Medicaid-reimbursement, particularly if made at an enhanced federal match, could be used in the absence of a training mandate to incentivize states to increase their training requirements. Conducting an analysis of provider payment rates, and encouraging states to establish different rate tiers for providers that invest in pre-service and ongoing training for their Medicaid-funded employees, could also help strengthen access to quality training.

#5b. Identify Standards for the Most Effective Training

The type of training that aides receive is also critical. Home health aides who have had a combination of hands on and classroom training felt better prepared for their jobs (87.2 percent) than those whose initial training was predominantly classroom study (60.7 percent).[718] As part of the Affordable Care Act, Congress established the PHCAST (Personal and Home Care Aide State Training) program to encourage states to define competency-based training programs that would provide a foundation for national training standard for home care workers. California, Iowa, Maine, Massachusetts, Michigan, and North Carolina received three-year grants to develop statewide

competency-based curricula and credentialing standards, with the objective that the training standards they developed would constitute a "Gold Standard" for future training. The states are charged with identifying effective teaching approaches and core competencies, as well as to explore career pathways to enable home care workers to transition to other occupations.[719]

An evaluation of Michigan's PHCAST demonstration project, "Building Training … Building Quality" found that the program enhanced knowledge across all learning groups regardless of their prior training and experience, and increased learners' feelings of competence and commitment to the field. Ninety-four percent of learners felt that they were better able to support clients and 77 percent reported increased job satisfaction.[720] The training also improved participants' employment, with 13 percent reporting that the program had helped them get a job, 38 percent thought it helped them become a better PCA in their current position, and 10 percent reported that it had enabled them to advance to a better job.[721] As findings from the state demonstrations are collected, they should be used to help structure comprehensive, competency-based training incentives and requirements for other states.

#5c. Enhance Long-Term Care Registered Apprenticeship Programs for Home Health Aides

In response to projected growth in the healthcare field, the U.S. Department of Labor's Office of Apprenticeship has established apprenticeship avenues for long-term care workers, through the Long-Term Care Registered Apprenticeship Programs, as a way to build a competent workforce and address challenges relating to recruitment and retention to improve the quality of patient care.[722] Apprenticeship sponsors receive startup funding from the government, and provide on-the-job training and instruction to apprentices in accordance with licensing and other professional requirements. The "earn while you learn" strategy helps attract new workers while ensuring their competency and introduces them to a career path in a burgeoning field.

The Long-Term Care Registered Apprenticeship Program for Home Health Aides[723] is a competency-based apprenticeship that begins with entry-level training followed by a supervised practical module that exceed the federal requirements. Participants receive Certificates of Training or Interim Credential and incremental wage increases as they complete different levels of specialization in such areas as palliative care, geriatrics, and dementia, among others.[724] Program analyses of the Long-Term Care Registered Apprenticeship Programs for home health aides showed that participants were considerably younger, less educated, and had a higher share of males than national demographics for home health aides, and were relatively diverse.[725] However, in the initial analysis, only 13 percent of HHAs completed their training and a high proportion (62 percent) of trainings were cancelled, both of which were likely attributable to the still-relatively low wage rates paid in the program.[726]

More recently, the model, initiated by PHI, has been successfully implemented in Washington State through the SEIU Healthcare NW Training Partnership, a 501(c)3 school and labor-management partnership.[727] The Partnership is the largest provider of certified home care workers in Washington, now training more than 45,000 workers.[728] Students who start training have high completion rates of 90 percent or better across the board, and more than 80 percent of the Partnership's native English-speaking students pass the state certification exam.[729] The competency-based apprenticeship program includes both basic and advanced training, as well as peer mentorship. Following basic training, apprentices may choose specialties depending on their interests and the consumer population for whom they will care. Funding should be allocated to broaden replication of this effort across other states.

#5d. Reduce Barriers to Employment

Securing an adequate workforce to provide quality home-based care will be critical to addressing the nation's long-term service needs in the coming decades. However, the challenge of filling the need for direct care workers, even with strategies designed to improve the quality of jobs and increase retention, will be compounded by demographic trends. Nationally, the population of women ages 25-54, who make up the typical direct care worker, will increase by only 1 percent by 2030.[730] Improving pay and benefits will help attract new workers into the field; even if home care workers are not drawn initially to the work based on their commitment to care, their attachment to the profession increases where wages and benefits are improved.[731] However, additional steps to expand access to those with limited education and work histories, as well as those with limited English skills or criminal backgrounds, will help broaden the supply of available workers, and create good job opportunities for those otherwise disadvantaged in the labor market.

Foreign-born workers already comprise a significant share of direct care workers, for example, but the need for home care workers available to assist older adults with limited English proficiency will grow as the foreign-born population ages. In 2014, 13.2 percent of those over the age of 65 were foreign born, but this share is expected to grow to 16.9 percent—representing some 12.5 million older adults—by 2030. By 2050, almost 1 in 4 older adults will be foreign born.[732] Ensuring that training is provided in multiple languages and that linguistically-accessible supervision is available to support home care workers whose native language is not English will support their entry and retention in the occupation. Additionally, having a linguistically diverse workforce will help enhance the communication and coordination of care with clients and their families that is so important to providing quality care.

Under Medicaid, states are required to develop provider qualification standards, but there is no federal requirement mandating criminal background checks as a screening tool for home care workers. The Affordable Care Act, however, established a voluntary program through which CMS offers states matching grants for screening programs, and 46 states and the District of Columbia require preemployment criminal background checks for Medicaid home care workers.[733] However, the laws varied widely as to (1) the types of disqualifying convictions; (2) which data sources must be checked; (3) the time period of disqualification for certain kinds of offenses; and (4) whether applicants have the right to a waiver or to appeal a disqualification, including demonstrating rehabilitation. The components even varied as to their application to comparable workers in different programs.[734]

Protecting vulnerable home care patients is paramount, but it is critical that screening for potential home care workers not exclude qualified candidates. The process should not exclude those who do not pose a risk to clients' health and safety, and be based on solid evidence of a connection between the prior offense and the risk of harm.[735] Ensuring that there is a process through which applicants may appeal denials of employment, and that considers the passage of time since their conviction, extenuating circumstances, any rehabilitation they have undergone, and the connection of the disqualifying offense to their potential role will help to reduce barriers to employment and expand the potential LTSS workforce without unjustifiably risking the well-being of those who need care. Providing clear information to applicants about the basis for restrictions on employment, as well as assistance in compiling any evidence that might support their claim of rehabilitation, would allow people with a disqualifying offense to demonstrate that they do not pose a threat to people needing support, and so help open the sector to the 70 million adults with some form of a criminal record.

In all cases, it is critical that background checks be conducted quickly, to alleviate the financial pressure on low-income applicants that could drive them to other, less restrictive industries. In a pilot program that funded background checks of applicants for work in a range of long-term care settings across seven states, the median time to process checks ranged from as few as 15 days to 183 days;[736] for those applicants without a criminal background to be considered, these waiting times can be financially prohibitive.

In recognition of the demographic trends facing the healthcare sector on both the patient and employee sides, as well as the educational and skill challenges that some adults face in securing employment, the Affordable Care Act established Health Profession Opportunity Grants (HPOG), which are designed to provide education, training, and supportive services to recipients of Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals to promote their access to a range of occupations in the healthcare field, including home health aides.[737] In its first funding round in 2010, the program, under the auspices of the Administration for Children and Families at the U.S. Department of Health and Human Services, provided five-year grants to 32 organizations in 23 states as well as five awards to tribal applicants, to provide basic education and healthcare occupational training that will result in an employer or industry-recognized certificate or credential.[738] A second round of grants was awarded in September 2015 to 32 organizations in 21 states.[739]

HPOG programs are conducted by a range of entities, including local workforce investment boards; universities, community colleges, and community college districts; and community-based organizations, as well as tribal councils and colleges.[740] The second round of grants is projected to enroll over 36,000 individuals, more than a third of whom will be TANF recipients, and to help more than 21,000 participants obtain employment in a healthcare occupation.[741] Although an evaluation of the initial round of grants will not be released until 2017, preliminary analysis found that 62 percent of TANF recipients participating in a HPOG program had completed at least one training course within 18 months of enrollment, and almost three-quarters (72 percent) were employed after finishing training and existing the program, with the majority in healthcare occupations.[742] However, only 15 percent of participants were TANF recipients, suggesting that additional efforts may be needed to recruit and serve TANF participants, especially in the face of state TANF eligibility and work requirements, in order to promote their access to healthcare occupations.

#5e. Fund Professional Development to Improve Care and Enhance Economic Mobility

Increasing wages and benefits, and providing funding and access to pre-service education and training can all serve as effective recruitment tools for workers new to direct service work. But to further encourage out-of-work Americans to become home care workers, and to reduce the risk of turnover for them and those already in the profession, investments in ongoing education, training and career pathways that offer economic mobility are necessary.

(i) Training for Incumbent Workers

Workload stress and concerns about career advancement negatively affect home care worker's job satisfaction and their intention to remain in the occupation, while feeling challenged and confident about one's competence significantly drive their decisions to stay.[743] However, investments in training and ongoing education are inconsistent across the states, and universally underfunded.[744] As noted above, there are no current national training standards for personal care attendants, and while the IOM[745] has recommended that minimum federal requirements for training of direct

care workers be increased to at least 120 hours, only 20 states currently require training over and above the current federally required 75 hours.[746] The challenge of providing adequate training is compounded by shortages in supervisors and faculty trained in geriatrics and gerontology.[747]

Consequently, while more than 9 in 10 home health aides reported having had some continuing education (including in-service training) within the previous two years, about one-fifth had found the training only somewhat or not at all useful.[748] Those who had found their continuing education to be only somewhat or not all useful were more than three times as likely to be dissatisfied with their jobs as those who had reported finding their continuing education to be useful.[749]

In response to these needs, the Affordable Care Act included an array of training and workforce development grants related to direct care work. Variously directed to states, community colleges and universities, and community-based organizations—often through collaborative partnerships—the programs were designed to develop and implement direct care standards, training and professional development programs. Among those included were:

- The Nursing Assistant and Home Health Aide Program[750] through which 10 programs received a total of 2.4 million in funding through to provide training to a targeted 4,000 nursing assistants and home health aides over the three-year grant period.[751]
- Training Opportunities for Direct Care Workers[752] which authorized $10 million annually for three years to higher education and community-based provider partners to offset tuition and fees for direct care workers. Recipients of educational assistance would be required to commit to work in the field of geriatrics, disability services, long-term services and supports, or chronic care management for a minimum of two years.
- Expanded eligibility for the Geriatrics Workforce Enhancement Program[753] to promote education and training in geriatrics to develop an integrated health care workforce, including direct care workers, that improves health outcomes for older adults. For 2015, the Health Resources and Services Administration awarded $35.7 million to 44 programs in 29 states.[754]

The initiatives established by the ACA reflected a formal recognition of the need to build capacity for training and workforce development for direct care workers, and appropriating funds to them on an ongoing basis will help address current inadequacies. Further, though, it is critical to establish a systemic approach to integrate training investments into the infrastructure of home health care. CMS currently allows reimbursement under Medicaid for continuing education and training, and states can build this into their provider rates.[755] However, given federal-state cost sharing, the enhanced provider rate is an additional cost burden that is unlikely to be adopted in the face of other cost and access pressures. To incentivize states to either mandate or encourage providers to increase the availability of continuing education and training, the federal government could provide an enhanced matching rate for the share of direct costs attributable to training and education, up to a defined amount.

(il) Career Pathways

While home care workers express commitment to caring and to their clients, many also want the chance to advance professionally. According to analysis of the 2007 National Home Health Aide Survey of workers employed by agencies providing home health and hospice care, 80 percent of aides stated that they had taken their position because they eventually wanted to become a nurse.[756] This desire for advancement is significant; a competent and knowledgeable LTSS

workforce across the relevant professions is critical to ensuring that older adults receive high-quality care that can contribute to better quality of life outcomes and reduce long-term costs. However, the supply of health and long-term care workers does not meet current demand.[757]

Providing education and training opportunities for home care workers that will allow them to assume greater responsibilities in direct care work and to progress to higher paying, more skilled jobs in the health care sector will help address current and future shortages projected not just for direct care workers, but also for other professionals specialized in geriatrics. According to the IOM, in order to maintain the current ratio of healthcare workers to the population, the United States must add an estimated 3.5 million healthcare workers by 2030.[758] Reaching this target requires substantial investments in training. For example, the average age of a nurse in the United States is 50; by 2020, nearly half of all registered nurses will reach traditional age for retirement,[759] and only one percent of the more than 2.5 million registered nurses currently are certified in gerontology.[760] Consequently, the number of new registered nurses projected to meet demand by BLS was the second highest of all occupations, expecting to add more than 493,000 jobs by 2024.[761] Creating a pipeline of nurses in the gerontology field could also help save costs down the line. Analysis suggests that there may be cost efficiencies to promoting smaller, non-profit agencies with more nurses on staff, reducing the need for contract nursing staff.[762]

The creation of new higher-paying mid-level positions with enhanced roles and responsibilities would also provide opportunities for advancement and improve the quality of care. One solution that has been proposed is an Advanced Direct Care Worker role in home care settings that could help alleviate burdens that currently fall on family caregivers or entail care by more costly nursing staff.[763] While family caregivers provide assistance with routine ADLs and IADLs, their support also commonly includes help managing health care needs. More than half report carrying out medical or nursing tasks;[764] three-fourths (78 percent) of family caregivers responsible for medical tasks were managing medications, including administering intravenous fluids and injections.[765] Among those responsible for a family member's medical needs, two out of three reported having had no home visits by a health care professional in the previous year.[766] Understandably, 40 percent of those managing medical care expressed considerable stress over these responsibilities;[767] 1 in 4 caregivers considers medical tasks difficult to perform, and those who undertake a greater number of them are more likely to report that the provision of care has made their own health worse.[768]

With appropriate training and supervision, advanced care workers could take on some of these tasks, such as helping to monitor and administer medications and monitoring patients' health, or providing training and support to family members undertaking them.[769] Certification could be based on completion of a competency-based curriculum that includes education, hands-on training and evaluation, including specific training in geriatric issues.[770] Another related advanced role could involve supporting family caregivers; family caregivers providing assistance with medical/nursing tasks overwhelmingly desire personal training, with 61 percent wanting a demonstration by a qualified person showing them how to perform the procedures, and more than half (53 percent) wanting hands-on training by a qualified person.[771]

Other advanced roles could involve enhancing communication and coordination among an individual's care team and family members at the direction of the client. This could involve creating a senior aide position that provides support and mentoring to entry-level workers to help promote their competency and retention, or establishing a specialty for workers with

training in palliative care or dementia.[772] A one-year pilot program in Los Angeles created an *Enhanced Home Care* role under which home care providers became part of their clients' patient-centered health care team, and received additional training to support their ability to integrate and interact effectively.[773]The pilot improved participants' health and the quality of care, and reduced costs: client-participants physical, mental and emotional health measured significant improvements, they reported higher satisfaction with their care, and they used acute and emergency services less, for example.[774]

Providing federal payment incentives, so that states can establish appropriate provider rates that account for the specialized training and supervision involved in these roles and reflect higher wages for more skilled aides, could encourage states to explore and undertake these initiatives.

Additionally, the National Alliance of Direct Support Professionals (NADSP) has developed a national credentialing program that incorporates 12 knowledge and skill set standards into three qualification levels for direct care workers to improve training and competency and provide opportunities for advancement that can affect worker attrition.[775] NADSP encourages states to improve the capacity of providers to support educational and training activities by claiming some of the costs as Medicaid-related activities, either as part of the state's administrative rate or included in provider payment rates.[776] However, stronger financial incentives, such as allowing states to claim an enhanced federal matching rate, or federal coverage of 100 percent of training costs for providers that invest in accredited training beyond the minimum requirements, are likely to better promote adoption in the face of other statewide cost pressures.

Finally, in April 2016, the White House announced an initiative to build career pathways in the healthcare sector through paid internships and career counseling for a targeted 1,000 unemployed and underemployed Americans, starting with seven communities across the country.[777] The success of the internship model may suggest future applications to the home care field.

Conclusion

Systemic investments that build the caregiving infrastructure in the United States can create good, new jobs that will help meet the care needs of American families across the life span, providing critical support as they manage their caregiving responsibilities in the face of work and other demands. While the investments needed to implement the framework envisioned in this report are substantial, by creating new employment opportunities, improving the quality of existing caregiving jobs, and promoting the productivity and labor force participation of family caregivers, they represent a cost-effective economic stimulus that, structured properly, can also produce significant long-term economic and social returns. With only 4 in 10 Americans (42 percent) considering this a good time to find a quality job,[778] strategic investments that expand high-quality employment in the caregiving sector and offer pathways for advancement are necessary and timely.

Investing in formal caregiving is also a strategy that the public believes in. By a margin of almost two to one, adults agree that early care and education should be made free for everyone,[779] and the same share of Americans ages 40 and older (59 percent) have expressed support for the creation of a government administered long-term care insurance program, similar to Medicare.[780] The state of caregiving in the United States and the struggles it has produced for families have been examined for decades. Now is the time to adopt structural solutions that work for caring families, and for the workers who help care for them.

Appendix

Explanation of Early Childhood Education Economic Simulation

As referenced earlier in this report, numerous analyses have demonstrated the potential positive long-term economic effects that are associated with investments in high-quality early care and education. We performed an analysis to estimate the short-term stimulative impact of our early care and education proposals to raise wages and expand access to high-quality care under various assumptions. Our impact analysis includes two components, considering separately the effects of investment in a wage pass-through for current workers, as well as those produced by expanding subsidized early care and education to create new jobs. While we would expect that the economic stimulus generated by these investments would also yield new indirect and induced job creation, those effects are outside the scope of this analysis.

WAGE PASS-THROUGH

First, we estimated the fiscal impact of a federal wage pass-through to publicly funded early childhood education workers. As described below, we considered the effect of investments in raising wages on federal income tax revenue, workplace productivity, increased economic consumption, and reduced spending on federal benefits.

Given that there is no exact count of the numbers of workers funded through federal early care and education programs, we started by estimating the number of teachers who might qualify for a wage increase based upon our proposal. For center-based early care and education providers, as shown in Exhibit A1, NSECE data from October 2013 indicates a workforce of approximately 913,600 center-based teachers of students ages 0-5 designated by sponsorship of the center.[i] The data further classifies these teachers by their level of education, which is important to the magnitude of the wage increase that we recommend. For the purposes of the NSECE, revenues from the federal government include financing from Head Start, Title I, and the Child and Adult Care Food Program (CACFP), while state support includes tuitions paid by vouchers or certificates and under state contracts.[ii] According to the NSECE data, of 129,000 center-based programs, 23.7 percent receive no public funding.[iii] To derive an estimate of the number of ECE staff represented by the share of centers that do receive public funding, we applied a ratio developed by the Administration for Children and Families, which uses an estimate of eight professional staff per center, to identify an estimated 787,416 staff working in centers that receive some public funding. [iv] We then weighted the distribution of this figure among wage levels using the NSECE sponsorship and educational level data in Exhibit B1.

Exhibit B1 applies our proposed wage increases to these groups of teachers, with an allowance of 25 percent to cover potential payroll and other fringe benefit increases that might be necessitated by wage increases.[v] Since the median hours worked for center-based caregivers was 39.2[vi] we assume wage increases over a 40 hour work week, for 52 weeks per year. Our hourly wage increases, over present averages by center type and education level, amount to a $12.2 billion dollar increase for the total population.

EXHIBIT A1. Center-Based Teachers Teaching 0-5 - Share by Education Level

		NUMBER	SHARE OF TOTAL
	High School or Less (1)		
1	Public School Sponsored	2,500	0.3%
2	Head Start Funded	17,600	1.9%
3	Public Pre-K Funded	36,800	4.0%
4	All Other ECE	116,000	12.7%
5	Subtotal: High School or Less	172,900	18.9%
	Some College, No Degree (2)		
6	Public School Sponsored	10,100	1.1%
7	Head Start Funded	31,000	3.4%
8	Public Pre-K Funded	55,500	6.1%
9	All Other ECE	165,000	18.1%
10	Subtotal: Some College, No Degree	261,600	28.6%
	Associate's Degree (3)		
11	Public School Sponsored	8,800	1.0%
12	Head Start Funded	39,600	4.3%
13	Public Pre-K Funded	32,900	3.6%
14	All Other ECE	76,100	8.3%
15	Subtotal: Associate's Degree	157,400	17.2%
	Bachelor's Degree or Higher (4)		
16	Public School Sponsored	33,200	3.6%
17	Head Start Funded	43,200	4.7%
18	Public Pre-K Funded	69,300	7.6%
19	All Other ECE	176,000	19.3%
20	**Subtotal: Bachelor's Degree or Higher**	321,700	35.2%
21	**Total Center-Based Childcare Professionals**	**913,600**	**100.00%**

[1] National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Table 26.

[2] National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Table 23.

[3] National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Table 20

[4] National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Table 17

EXHIBIT A2. Center-Based Teachers Teaching 0-5 - Number at Centers Receiving Federal Funding per NSECE Data

		2014 ESTIMATE
1	**Number of Childcare Centers in United States** [1]	129,000
2	**Portion Reporting Some Public Funding** [2]	76.3%
3	**Number of Centers Reporting Some Public Funding**	98,427
4	**Workers per Publicly Funded Center** [3]	8
5	**Number of Childcare Workers at Centers Receiving Public Funding**	787,416

[1] Characteristics of Center-based Early Care and Education Programs: Initial Findings from the National Survey of Early Care and Education (NSECE), November 2014, Exhibit 2.

[2] Excludes 23.7% that report no public funding, per Characteristics of Center-based Early Care and Education Programs: Initial Findings from the National Survey of Early Care and Education (NSECE), November 2014, pg. 11.

[3] CCDF Rule uses an estimate of 8 professional staff per center-based provider to estimate costs. See Child Care and Development Fund Program; Final Rule, 81 Fed.Reg. 67438, 67554 (published 30 September 2016). Available at https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program.

As others have noted, the wages of many workers—including those in early care and education—are so low that they must rely on government assistance. Allegretto et al. examined the use of four public assistance programs—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)—among child care workers and their families.[vii] Their conservative analysis estimated that 46 percent of child care workers had families enrolled in one or more of these public programs, with average costs per family of $7,860. Higher hourly wages—particularly lifting the hourly base wage for federally funded early care and education workers to $15.00—would undoubtedly generate reductions in the use of these programs, and resulting savings in public expenditures.[viii] To estimate the aggregate effect on public assistance receipt from our proposed wage increases, we relied on the analysis of public assistance by wage deciles included in a 2016 Economic Policy Institute report by David Cooper, "Balancing Paychecks and Public Assistance: How Higher Wages Would Strengthen What Government Can Do." In Exhibit B2, we applied the Reduction in Public Benefits per $1.00 hourly wage increase calculated by Cooper at different income levels, applied these reduction rates to each cohort of teachers depending on their median wage, and multiplied the rate per dollar by the dollar value of the wage increase we have recommended. Our model estimates a decrease in reliance on public benefits of approximately $986 million for these workers. Exhibit B3 estimates the marginal income tax associated with this wage increase, accounting for some offset of income gains from increased wages by the loss of public assistance calculated in Exhibit B2. Applying 2015 marginal tax rates to educators' wage increases, net of loss of public assistance and exclusive of increases in fringe benefits, indicates incremental federal income taxes of approximately $1.96 billion as an offset to the $12.2 billion cost of the wage pass-through.

EXHIBIT B1a. Center-Based Teachers Teaching 0-5 per NSECE Data - Wage Increase by Education Level

		SHARE OF TOTAL [1]	NUMBER OF WORKERS [2]	MEDIAN HOURLY WAGE [3]	HOURLY WAGE GOAL	NET HOURLY WAGE INCREASE
1	**Number of Childcare Workers at Centers Receiving Public Funding**	100.00%	787,416			
	High School or Less					
2	Public School Sponsored	0.3%	2,155	$11.80	$15.00	$3.20
3	Head Start Funded	1.9%	15,169	10.00	15.00	5.00
4	Public Pre-K Funded	4.0%	31,717	8.50	15.00	6.50
5	All Other ECE	12.7%	99,978	8.70	15.00	6.30
6	**Subtotal: High School or Less**	18.9%	149,020			
	Some College, No Degree					
7	Public School Sponsored	1.1%	8,705	$13.80	$15.00	$1.20
8	Head Start Funded	3.4%	26,718	10.20	15.00	4.80
9	Public Pre-K Funded	6.1%	47,834	9.40	15.00	5.60
10	All Other ECE	18.1%	142,211	11.00	15.00	4.00
11	**Subtotal: Some College, No Degree**	28.6%	225,469			
	Associate's Degree					
12	Public School Sponsored	1.0%	7,585	$13.30	$17.70	$4.40
13	Head Start Funded	4.3%	34,131	12.20	17.70	5.50
14	Public Pre-K Funded	3.6%	28,356	9.80	17.70	7.90
15	All Other ECE	8.3%	65,589	9.90	17.70	7.80
16	**Subtotal: Associate's Degree**	17.2%	135,660			
	Bachelor's Degree or Higher					
17	Public School Sponsored	3.6%	28,615	$20.60	$24.82	$4.22
18	Head Start Funded	4.7%	37,233	14.80	24.82	10.02
19	Public Pre-K Funded	7.6%	59,728	15.00	24.82	9.82
20	All Other ECE	19.3%	151,691	13.50	24.82	11.32
21	**Subtotal: Bachelor's Degree or Higher**	35.2%	277,268			
22	**Number of Childcare Workers at Centers Receiving Public Funding**	100.00%	787,416			

[1] See Exhibit A1.

[2] See Exhibit A2 for total Number of Workers. Allocations to different education levels and funding sources per the shares calculated in Exhibit A and replicated below.

[3] Source for wage data: National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf

EXHIBIT B1b. Center-Based Teachers Teaching 0-5 per NSECE Data - Wage Increase by Education Level

	2800 HOUR WORK WEEK	ANNUAL WAGE INCREASE PER WORKER [3]	ESTIMATED BENEFIT INCREASE PER WORKER [4]	ANNUAL COMPENSATION INCREASE PER WORKER	ANNUAL COMPENSATION INCREASE FOR WORKFORCE
	High School or Less				
2	Public School Sponsored	$6,656	$1,664	$8,320	$17,927,159
3	Head Start Funded	10,400	2,600	13,000	197,198,753
4	Public Pre-K Funded	13,520	3,380	16,900	536,022,065
5	All Other ECE	13,104	3,276	16,380	1,637,646,008
6	**Subtotal: High School or Less**				$2,388,793,986
	Some College, No Degree				
7	Public School Sponsored	$2,496	$624	$3,120	$21,727,717
8	Head Start Funded	9,984	2,496	12,480	266,756,131
9	Public Pre-K Funded	11,648	2,912	14,560	557,176,113
10	All Other ECE	8,320	2,080	10,400	1,183,192,518
11	**Subtotal: Some College, No Degree**				$2,028,852,480
	Associate's Degree				
12	Public School Sponsored	$9,152	$2,288	$11,440	$69,413,961
13	Head Start Funded	11,440	2,860	14,300	390,453,531
14	Public Pre-K Funded	16,432	4,108	20,540	465,944,799
15	All Other ECE	16,224	4,056	20,280	1,064,120,326
16	**Subtotal: Associate's Degree**				$1,989,932,617
	Bachelor's Degree or Higher				
17	Public School Sponsored	$8,778	$2,194	$10,972	$251,166,674
18	Head Start Funded	20,842	5,210	26,052	776,002,191
19	Public Pre-K Funded	20,426	5,106	25,532	1,219,989,806
20	All Other ECE	23,546	5,886	29,432	3,571,663,816
21	**Subtotal: Bachelor's Degree or Higher**				$5,818,822,486
22	**Number of Childcare Workers at Centers Receiving Public Funding**				$12,226,401,570

[4] Our hourly wage goals for educational attainment are based on 40 hours per week at 52 weeks per year. The median hours per week for teachers is 39.2 hours. See National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Appendix I Table 37.

[5] Assumes benefit increase equivalent to 25% of wage increase. We based this figure on the share of total compensation for benefit costs for service workers in service-providing industries was 23.8 percent, as defined in "Employer Costs for Employee Compensation, Table 9: Employer Costs Per Hour Worked For Employee Compensation And Costs As A Percent Of Total Compensation: Private Industry Workers, Goods-Producing And Service-Providing Industries, By Occupational Group, June 2016." U.S. Bureau of Labor Statistics, 8 September 2016.

EXHIBIT B2. Center-Based Teachers Teaching 0-5 per NSECE Data - Reduction in Reliance on Public Benefits

	2800 HOUR WORK WEEK	SHARE OF TOTAL [1]	NUMBER OF WORKERS [2]	MEDIAN HOURLY WAGE	HOURLY WAGE GOAL	NET HOURLY WAGE INCREASE	REDUCTION IN PUBLIC BENEFITS PER $1 HOURLY WAGE INCREASE [3]	ESTIMATED REDUCTION IN PUBLIC BENEFITS PER WORKER	ESTIMATED REDUCTION IN PUBLIC BENEFITS FOR WORKFORCE
	High School or Less								
2	Public School Sponsored	0.3%	2,155	$11.80	$15.00	$3.20	$174.67	$558.94	$1,204,360
3	Head Start Funded	1.9%	15,169	10.00	15.00	5.00	189.50	947.50	14,372,755
4	Public Pre-K Funded	4.0%	31,717	8.50	15.00	6.50	199.49	1,296.69	41,127,324
5	All Other ECE	12.7%	99,978	8.70	15.00	6.30	199.49	1,256.79	125,651,539
6	**Subtotal: High School or Less**	18.9%	149,020						$182,355,979
	Some College, No Degree								
7	Public School Sponsored	1.1%	8,705	$13.80	$15.00	$1.20	$155.09	$186.11	$1,620,073
8	Head Start Funded	3.4%	26,718	10.20	15.00	4.80	178.72	857.86	22,920,508
9	Public Pre-K Funded	6.1%	47,834	9.40	15.00	5.60	189.50	1,061.20	50,761,958
10	All Other ECE	18.1%	142,211	11.00	15.00	4.00	178.72	714.88	101,663,542
11	**Subtotal: Some College, No Degree**	28.6%	225,469						$176,966,081
	Associate's Degree								
12	Public School Sponsored	1.0%	7,585	$13.30	$17.70	$4.40	$174.67	$768.55	$5,829,104
13	Head Start Funded	4.3%	34,131	12.20	17.70	5.50	174.67	960.69	32,788,711
14	Public Pre-K Funded	3.6%	28,356	9.80	17.70	7.90	189.50	1,497.05	42,450,259
15	All Other ECE	8.3%	65,589	9.90	17.70	7.80	189.50	1,478.10	96,947,501
16	**Subtotal: Associate's Degree**	17.2%	135,660						$178,015,575
	Bachelor's Degree or Higher								
17	Public School Sponsored	3.6%	28,615	$20.60	$24.82	$4.22	$0.00	$0.00	$0
18	Head Start Funded	4.7%	37,233	14.80	24.82	10.02	155.09	1,554.00	57,860,663
19	Public Pre-K Funded	7.6%	59,728	15.00	24.82	9.82	155.09	1,522.98	90,965,490
20	All Other ECE	19.3%	151,691	13.50	24.82	11.32	174.67	1,977.26	299,933,903
21	**Subtotal: Bachelor's Degree or Higher**	35.2%	277,268						$448,760,056
22	**Number of Childcare Workers at Centers Receiving Public Funding**	100.00%	787,416						$986,097,691

[1] See Exhibit A1.

[2] See Exhibit B1.

[3] Cooper, David, "Balancing paychecks and public assistance," February 2016. Retreived from <http://www.epi.org/publication/wages-and-transfers/>. Reduction in benefits per $1 hourly wage increase estimated based on a comparison of median hourly wage for each cohort in this model to the "Average hourly wage of workers in this range" value in Table 3 of the Cooper Paper. For the nearest average hourly wage to the median wage of each cohort, the "All means-tested government assistance" value from Table 3 was applied.

EXHIBIT B3. Center-Based Teachers Teaching 0-5 per NSECE Data - Incremental Tax Revenue

	2800 HOUR WORK WEEK	CURRENT ANNUAL WAGE [1]	ANNUAL WAGE UNDER PROPOSAL [2]	AVERAGE WAGE INCREASE	LESS AVERAGE PUBLIC BENEFIT DECREASE	NET INCOME INCREASE	WEIGHTED AVERAGE MARGINAL TAX RATE [3]	INCREMENTAL TAX REVENUE PER WORKER	NUMBER OF WORKERS	INCREMENTAL TAX REVENUE
	High School or Less	$24,544	$31,200	$6,656	$559	$6,097	15.0%	$915	2,155	$1,970,605
1	Public School Sponsored	$24,544	$31,200	$6,656	$559	$6,097	15.0%	$915	2,155	$1,970,605
2	Head Start Funded	20,800	31,200	10,400	948	9,453	15.0%	1,418	15,169	21,507,937
3	Public Pre-K Funded	17,680	31,200	13,520	1,297	12,223	15.0%	1,833	31,717	58,153,549
4	All Other ECE	18,096	31,200	13,104	1,257	11,847	15.0%	1,777	99,978	177,669,790
5	**Subtotal: High School or Less**									$259,301,882
	Some College, No Degree									
6	Public School Sponsored	$28,704	$31,200	$2,496	$186	$2,310	15.0%	$346	8,705	$3,016,147
7	Head Start Funded	21,216	31,200	9,984	858	9,126	15.0%	1,369	26,718	36,575,344
8	Public Pre-K Funded	19,552	31,200	11,648	1,061	10,587	15.0%	1,588	47,834	75,962,123
9	All Other ECE	22,880	31,200	8,320	715	7,605	15.0%	1,141	142,211	162,229,346
10	**Subtotal: Some College, No Degree**									$277,782,960
	Associate's Degree									
11	Public School Sponsored	$27,664	$36,816	$9,152	$769	$8,383	15.0%	$1,258	7,585	$9,537,729
12	Head Start Funded	25,376	36,816	11,440	961	10,479	15.0%	1,572	34,131	53,649,723
13	Public Pre-K Funded	20,384	36,816	16,432	1,497	14,935	15.0%	2,240	28,356	63,524,181
14	All Other ECE	20,592	36,816	16,224	1,478	14,746	15.0%	2,212	65,589	145,075,924
15	**Subtotal: Associate's Degree**									$271,787,556
	Bachelor's Degree or Higher									
16	Public School Sponsored	$42,848	$51,626	$8,778	$0	$8,778	25.0%	$2,194	28,615	$62,791,668
17	Head Start Funded	30,784	51,626	20,842	1,554	19,288	21.7%	4,186	37,233	155,877,123
18	Public Pre-K Funded	31,200	51,626	20,426	1,523	18,903	21.8%	4,129	59,728	246,603,727
19	All Other ECE	28,080	51,626	23,546	1,977	21,568	20.9%	4,515	151,691	684,954,532
20	**Subtotal: Bachelor's Degree or Higher**									$1,150,227,050
21	**Total Incremental Tax Revenue (Federal)**									$1,959,099,448
22	**Total Incremental Wages Plus Benefits**									$12,226,401,570

[1] See Exhibit B1; current hourly wage multiplied by 2,080 hours per year.

[2] Our hourly wage goals for educational attainment are based on 40 hours per week at 52 weeks per year. The median hours per week for teachers is 39.2 hours. See National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Appendix I Table 37.

[3] Assumes a 15% marginal tax rate on income below $37,650 and a 25% marginal tax rate on income above $37,650.

Exhibit B4 takes the remaining after-tax and public benefit reduction wages and applies a range of economic multipliers in an effort to estimate the stimulus effects of this wage pass-through. We have considered three multipliers. The low-end estimate of 31.8 percent is the estimated spending multiplier for an increase to caregiver salaries proposed in *Giving Caregivers a Raise: The Impact of a $15 Wage Floor in the Home Care Industry*, a 2015 NELP study. The mid-range estimate, 94.6 percent, is simply the present federal average spending rate. The high-end estimate of 120 percent was based upon stimulus multipliers determined in a 2013 EPI study entitled *Raising the Federal Minimum Wage to $10.10 Would Give Working Families, and the Overall Economy, a Much-Needed Boost.*

As a reasonableness test, given the challenge of estimating the number of federally funded teachers and caregivers who would be eligible for a wage pass-through under our proposal, Exhibits C1 through C4 provide an alternate calculation of the proposal using the NSECE's median wage estimates by education level as a starting point, rather than relying upon the more detailed data used in Exhibits B1-B3. In particular, current reporting requirements mandate that states detail the type and number of *providers* receiving CCDF and related funds, but not the number of teachers and caregivers per provider.[ix] According to the latest preliminary estimates for FY2014, CCDF-funded care was provided by 86,574 centers.[x] We use estimates of the number of staff per child care center derived by the Administration for Children and Families at the U.S. Department of Health and Human Services in support of rules implementing the recent CCDBG reauthorization, which generated a baseline multiplier of 11 staff members per child care center, 8 of whom are caregivers.[xi] This yields an estimated 692,592 caregiving staff in CCDF-funded centers.

The results of Exhibits B1-B4 and C1-C4 are summarized in Exhibit D1. These exhibits compare the costs of the program under different assumptions to the public benefit reductions, tax offsets, and spending increase estimates calculated in the prior exhibits. Additionally, Exhibit D1 includes an estimate of avoided turnover costs typically associated with wage increases to calculate a productivity benefit associated with the wage pass-through. Per a 2012 study by the Center for American Progress, we use a conservative estimate valuing these costs at 16.1 percent of salary.[xii] According to our analysis, the investments in raising wages of current federally funded early care and education providers could conservatively generate a fiscal impact from $8 billion to more than $16 billion, representing more than half to almost 140 percent of the expected cost of the program, depending on the fiscal multiplier.

Finally, we calculate the additional cost of passing along a wage increase to licensed, regulated home-based providers who receive federally funded subsidies; U.S. HHS Administration for Children and Families (ACF) preliminary estimates for FY2014 show that 11 percent of children receiving subsidies were served in licensed, regulated home care settings—an estimated 154,693 children. According to data from the NSECE, 44,400 listed home-based providers (those that are included on state and national lists of licensed, regulated, registered, or license-exempt providers), which represent approximately 66.1 percent of home-based providers who had income from caring for children, received reimbursement from governmental agencies.[xiii] Annual median income across listed home-based providers was $22,977. We used this to calculate an hourly median wage, assuming the provision of care for 40 hours a week for 52 weeks per year. We then computed the wage gap between the hourly median and our wage goal of $15.00 per hour, and calculated the increased monthly reimbursement needed to meet the wage goal. In order to allocate the increased reimbursement on a per child basis to cover those with subsidies, we divided the monthly amount by 6.5, the median number of children cared for by listed providers for whom they receive payment.[xiv] To generate the overall cost associated with CCDF-funded care, we multiplied the per child amount by 154,693, for an estimated total of $195.7 million annually.

EXHIBIT B4. Center-Based Teachers Teaching 0-5 per NSECE Data - Increased Consumption

	2800 HOUR WORK WEEK	PRE-TAX WAGE INCREASE [1]	INCREMENTAL TAX REVENUE [2]	POST-TAX WAGE INCREASE	GDP MULTIPLER (LOW) [3]	[1-NATIONAL SAVINGS RATE] (MID) [4]	GDP MULTIPLER (HIGH) [5]	GDP INCREASE (LOW)	GDP INCREASE (MID)	GDP INCREASE (HIGH)
	High School or Less									
1	Public School Sponsored	$14,341,727	$1,970,605	$12,371,122	31.8%	94.6%	120.0%	$3,927,831	$11,703,082	$14,845,347
2	Head Start Funded	157,759,002	21,507,937	136,251,065	31.8%	94.6%	120.0%	43,259,713	128,893,508	163,501,278
3	Public Pre-K Funded	428,817,652	58,153,549	370,664,103	31.8%	94.6%	120.0%	117,685,853	350,648,241	444,796,923
4	All Other ECE	1,310,116,807	177,669,790	1,132,447,017	31.8%	94.6%	120.0%	359,551,928	1,071,294,878	1,358,936,420
5	**Subtotal: High School or Less**	$1,911,035,189	$259,301,882	$1,651,733,307				$524,425,325	$1,562,539,709	$1,982,079,969
	Some College, No Degree									
6	Public School Sponsored	$21,727,717	$3,016,147	$18,711,571	31.8%	94.6%	120.0%	$5,940,924	$17,701,146	$22,453,885
7	Head Start Funded	266,756,131	36,575,344	230,180,788	31.8%	94.6%	120.0%	73,082,400	217,751,025	276,216,945
8	Public Pre-K Funded	557,176,113	75,962,123	481,213,990	31.8%	94.6%	120.0%	152,785,442	455,228,435	577,456,788
9	All Other ECE	1,183,192,518	162,229,346	1,020,963,172	31.8%	94.6%	120.0%	324,155,807	965,831,161	1,225,155,806
10	**Subtotal: Some College, No Degree**	$2,028,852,480	$277,782,960	$1,751,069,520				$555,964,573	$1,656,511,766	$2,101,283,424
	Associate's Degree									
11	Public School Sponsored	$69,413,961	$9,537,729	$59,876,233	31.8%	94.6%	120.0%	$19,010,704	$56,642,916	$71,851,479
12	Head Start Funded	390,453,531	53,649,723	336,803,808	31.8%	94.6%	120.0%	106,935,209	318,616,402	404,164,570
13	Public Pre-K Funded	465,944,799	63,524,181	402,420,618	31.8%	94.6%	120.0%	127,768,546	380,689,905	482,904,742
14	All Other ECE	1,064,120,326	145,075,924	919,044,402	31.8%	94.6%	120.0%	291,796,598	869,416,004	1,102,853,283
15	**Subtotal: Associate's Degree**	$1,989,932,617	$271,787,556	$1,718,145,061				$545,511,057	$1,625,365,228	$2,061,774,073
	Bachelor's Degree or Higher									
16	Public School Sponsored	$251,166,674	$62,791,668	$188,375,005	31.8%	94.6%	120.0%	$59,809,064	$178,202,755	$226,050,006
17	Head Start Funded	776,002,191	155,877,123	620,125,068	31.8%	94.6%	120.0%	196,889,709	586,638,315	744,150,082
18	Public Pre-K Funded	1,219,989,806	246,603,727	973,386,079	31.8%	94.6%	120.0%	309,050,080	920,823,231	1,168,063,295
19	All Other ECE	3,571,663,816	684,954,532	2,886,709,283	31.8%	94.6%	120.0%	916,530,197	2,730,826,982	3,464,051,140
20	**Subtotal: Bachelor's Degree or Higher**	$5,818,822,486	$1,150,227,050	$4,668,595,436				$1,482,279,051	$4,416,491,282	$5,602,314,523
21	**Total Incremental Wage**	$11,748,642,772								
22	**Total Incremental Tax Revenue**		$1,959,099,448							
23	**Incremental After-Tax Wage**			$9,789,543,324						

		Low	Mid	High
24	**GDP Increase Range**	$3,108,180,005	$9,260,907,985	$11,747,451,989

[1] See Exhibit B1; this amount does not include benefit increases.

[2] See Exhibit B3.

[3] National Employment Law Project. (February 2015). Giving Caregivers a Raise: The Impact of a $15 Wage Floor in the Home Care Industry. See p.5. The report provides a range of potential multipliers (23.5% to 40%) based on fiscal multipliers calculated by Mark Zandi, chief economist of Moody's Analytics, for the Earned Income Tax Credit and the Making Work Pay tax credit for working individuals and families provided by the American Recovery and Reinvestment Act (ARRA). The authors averaged the two multipliers to simulate the redistributive impact of the wage increase , then reduced it by an offsetting multiplier to account for the effect of higher costs to home care companies and potentially higher costs to taxpayers, particularly given that that the home care industry depends heavily on public funding. The program considered here would be fully government funded.

[4] <https://fred.stlouisfed.org/series/PSAVERT>; the US personal savings rate is given as 5.4%.

[5] See Cooper, D. and Hall, D. (2013). Raising the Federal Minimum Wage to $10.10 Would Give Working Families, and the Overall Economy, a Much-Needed Boost. Washington, DC: Economic Policy Institute. The authors average the stimulus multipliers developed by Mark Zandi of Moody's Analytics for the Earned Income Tax Credit and the Making Work Pay tax credit in the American Recovery and Reinvestment Act (ARRA) as a reasonable fiscal stimulus multiplier for increased spending from increased compensation of low wage workers. <http://www.epi.org/publication/ib341-raising-federal-minimum-wage/>; this study cites a 1.2x GDP multiplier for increases in compensation of low-wage workers.

EXHIBIT C1. Center-Based Teachers Teaching 0-5 per ACF Data and Median Wage by Education Level - Wage Increase by Education Level

		NUMBER OF CENTER-BASED CAREGIVERS [1]	MEDIAN HOURLY WAGE [2]	HOURLY WAGE GOAL	MEDIAN HOURLY INCREASE	ANNUAL WAGE INCREASE PER WORKER [3]	ESTIMATED BENEFIT INCREASE PER WORKER [4]	ANNUAL COMPENSATION INCREASE PER WORKER	ANNUAL COMPENSATION INCREASE FOR WORKFORCE
1	High School or less	172,900	$8.70	$15.00	$6.30	$13,104	$3,276	$16,380	$2,832,102,000
2	Some College, No Degree	261,600	11.00	15.00	4.00	8,320	2,080	10,400	2,720,640,000
3	Associate's Degree	157,400	9.90	17.70	7.80	16,224	4,056	20,280	3,192,072,000
4	Bachelor's Degree or Higher	321,700	13.50	24.82	11.32	23,546	5,886	29,432	9,468,274,400
5	Total Childcare Workers	913,600							$18,213,088,400
6	ACF Estimate of Staff in Centers with CCDF Funding	692,592							
7	Percentage of Staff in CCDF-funded Centers	75.8%							
8	Calculated Increase for Entire Workforce	$18,213,088,400							
9	**Increase for Workers at CCDF-funded Centers**	**$13,807,179,642**							

[1] See Exhibit A1.

[2] See Exhibit B1.

[3] Our hourly wage goals for educational attainment are based on 40 hours per week at 52 weeks per year. The median hours per week for teachers is 39.2 hours. See National Survey of Early Care and Education Project Team (October 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 #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 https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf, Appendix I Table 37.

[4] Assumes benefit increase equivalent to 25% of wage increase. We based this figure on the share of total compensation for benefit costs for service workers in service-providing industries was 23.8 percent, as defined in "Employer Costs for Employee Compensation, Table 9: Employer Costs Per Hour Worked For Employee Compensation And Costs As A Percent Of Total Compensation: Private Industry Workers, Goods-Producing And Service-Providing Industries, By Occupational Group, June 2016." U.S. Bureau of Labor Statistics, 8 September 2016.

[5] 86,574 centers x 8 professional staff per center. Based on ACF Preliminary FY2014 data, there were 86,574 center-based providers. CCDF Rule uses an estimate of 8 professional staff per center-based provider to estimate costs. See Child Care and Development Fund Program; Final Rule, 81 Fed.Reg. 67438, 67554 (published 30 September 2016). Available at https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program.

EXHIBIT C2. Center-Based Teachers Teaching 0-5 per ACF Data and Median Wage by Education Level - Reduction in Reliance on Public Benefits

	EDUCATIONAL ATTAINMENT	NUMBER OF CENTER-BASED CAREGIVERS [1]	MEDIAN HOURLY WAGE [2]	HOURLY WAGE GOAL	MEDIAN HOURLY INCREASE	REDUCTION IN PUBLIC BENEFITS PER $1 HOURLY WAGE INCREASE	ESTIMATED REDUCTION IN PUBLIC BENEFITS PER WORKER	ESTIMATED REDUCTION IN PUBLIC BENEFITS FOR WORKFORCE
1	High School or less	172,900	$8.70	$15.00	$6.30	$199.49	$1,257	$217,298,472
2	Some College, No Degree	261,600	11.00	15.00	4.00	178.72	715	187,012,608
3	Associate's Degree	157,400	9.90	17.70	7.80	189.50	1,478	232,652,940
4	Bachelor's Degree or Higher	321,700	13.50	24.82	11.32	155.09	1,756	564,782,568
5	Total Childcare Workers	913,600						$1,201,746,588
6	ACF Estimate of Staff in Centers with CCDF Funding [4]	692,592						
7	Percentage of Staff in CCDF-funded Centers	75.8%						
8	Calculated Public Benefit Reduction across Entire Workforce	$1,201,746,588						
9	**Public Benefit Reduction for Workers in CCDF-funded Centers**	**$911,033,355**						

[1] See Exhibit A1.

[2] See Exhibit B1.

[3] Cooper, David, "Balancing paychecks and public assistance," February 2016. Retreived from <http://www.epi.org/publication/wages-and-transfers/>. Reduction in benefits per $1 hourly wage increase estimated based on a comparison of median hourly wage for each cohort in this model to the "Average hourly wage of workers in this range" value in Table 3 of the Cooper Paper. For the nearest average hourly wage to the median wage of each cohort, the "All means-tested government assistance" value from Table 3 was applied.

[4] See Exhibit C1.

EXHIBIT C3. Center-Based Teachers Teaching 0-5 per ACF Data and Median Wage by Education Level - Incremental Tax Revenue

	EDUCATIONAL ATTAINMENT	NUMBER OF CENTER-BASED CAREGIVERS [1]	MEDIAN HOURLY WAGE [2]	CURRENT ANNUAL SALARY [3]	ANNUAL SALARY UNDER PROPOSAL [3]	ANNUAL INCREASE PER WORKER	LESS AVERAGE PUBLIC BENEFIT DECREASE	NET INCOME INCREASE	WEIGHTED AVERAGE MARGINAL TAX RATE [4]	ANNUAL TOTAL FOR WORKFORCE	INCREMENTAL TAX REVENUE	POST-TAX WAGE INCREASE
1	High School or less	172,900	$8.70	$18,096	$31,200	$13,104	$1,257	$11,847	15.0%	$2,048,383,128	$307,257,469	$1,741,125,659
2	Some College, No Degree	261,600	11.00	22,880	31,200	8,320	715	7,605	15.0%	1,989,499,392	298,424,909	1,691,074,483
3	Associate's Degree	157,400	9.90	20,592	36,816	16,224	1,478	14,746	15.0%	2,321,004,660	348,150,699	1,972,853,961
4	Bachelor's Degree or Higher	321,700	13.50	28,080	51,626	23,546	1,756	21,790	20.9%	7,009,836,952	1,467,547,664	5,542,289,288
5	Total Childcare Workers	913,600								$13,368,724,132	$2,421,380,741	$10,947,343,391
6	ACF Estimate of Staff in Centers with CCDF Funding [5]	692,592										
7	**Percentage of Staff in CCDF-funded Centers**	75.8%								$10,134,710,359	$1,835,627,112	$8,299,083,246

[1] See Exhibit A1.

[2] See Exhibit B1.

[3] Based on 40 hours per week at 52 weeks per year.

[4] Assumes a 15% marginal tax rate on income below $37,650 and a 25% marginal tax rate on income above $37,650.

[5] 86,574 centers x 8 professional staff per center. Based on ACF Preliminary FY2014 data, there were 86,574 center-based providers. CCDF Rule uses an estimate of 8 professional staff per center-based provider to estimate costs. See Child Care and Development Fund Program; Final Rule, 81 Fed.Reg. 67438, 67554 (published 30 September 2016). Available at https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program.

EXHIBIT C4. Center-Based Teachers Teaching 0-5 per ACF Data and Median Wage by Education Level - Increased Consumption

	EDUCATIONAL ATTAINMENT	PRE-TAX WAGE INCREASE [1]	INCREMENTAL TAX REVENUE [1]	POST-TAX WAGE INCREASE	GDP MULTIPLER (LOW) [2]	[1-NATIONAL SAVINGS RATE] (MID) [2]	GDP MULTIPLER (HIGH) [2]	GDP INCREASE (LOW)	GDP INCREASE (MID)	GDP INCREASE (HIGH)
1	High School or less	$2,048,383,128	$307,257,469	$1,741,125,659						
2	Some College, No Degree	1,989,499,392	298,424,909	1,691,074,483						
3	Associate's Degree	2,321,004,660	348,150,699	1,972,853,961						
4	Bachelor's Degree or Higher	7,009,836,952	1,467,547,664	5,542,289,288						
5	Total	$13,368,724,132	$2,421,380,741	$10,947,343,391						
6	Ratio of Workers at CCDF-Funded Centers [1]	75.8%	75.8%	75.8%						
								Low	Mid	High
7	**Total for Workers at CCDF-funded Centers**	$10,134,710,359	$1,835,627,112	$8,299,083,246	31.8%	94.6%	120.0%	$2,634,958,931	$7,850,932,751	$9,958,899,896

[1] See Exhibit C3; this amount does not include benefit increases.

[2] See Exhibit B4.

EXHIBIT D1. Short Term Wage Pass-Through Benefits - Alternative Funding Scenarios

		SCENARIO 1: MEAN WAGE BY CENTER TYPE AND EDUCATION NSECE DATA			"SCENARIO 2: MEDIAN WAGE BY EDUCATION LEVEL ACF DATA		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1	Program Cost [1]	$12,226,401,570	$12,226,401,570	$12,226,401,570	$13,807,179,642	$13,807,179,642	$13,807,179,642
2	Avoided Turnover Cost Ratio [2]	16.1%	16.1%	16.1%	16.1%	16.1%	16.1%
3	Productivity Benefit	$1,968,450,653	$1,968,450,653	$1,968,450,653	$2,222,955,922	$2,222,955,922	$2,222,955,922
4	Incremental Tax Revenue (Federal)	1,959,099,448	1,959,099,448	1,959,099,448	1,835,627,112	1,835,627,112	1,835,627,112
5	Increased Economic Activity	3,108,180,005	9,260,907,985	11,747,451,989	2,634,958,931	7,850,932,751	9,958,899,896
6	Estimated Public Benefit Reduction [1]	986,097,691	986,097,691	986,097,691	911,033,355	911,033,355	911,033,355
7	Aggregate Measured Short-Term Fiscal Benefit	**$8,021,827,797**	**$14,174,555,776**	**$16,661,099,781**	**$7,604,575,321**	**$12,820,549,141**	**$14,928,516,285**
8	Short Term Benefit as Percentage of Program Costs	**65.6%**	**115.9%**	**136.3%**	**55.1%**	**92.9%**	**108.1%**

[1] See Exhibit B1 and Exhibit C1.

[2] Assumes turnover costs of 16.1% of employee salary, consistent with the estimate for employees earning less than $30,000 annually, <https://www.americanprogress.org/issues/economy/report/2012/11/16/44464/there-are-significant-business-costs-to-replacing-employees/>. We note that this is likely conservative as the estimate increases to approximately 20% for people making over $30,000 and less than $70,000.

[3] See Exhibit B3 and Exhibit C3.

[4] See Exhibit B4 and Exhibit C4.

EXHIBIT E1. Family Child Care - Family Home Providers

1	Median Income of Listed Home Care Providers Receiving Government Funding [1]	$22,978
2	Assumed Full-time Hours Worked per Year	2,080
3	Hourly Wage Assuming 2,080 Hour Year	$11.05
4	Hourly Wage Goal	$15.00
5	Target Wage Increase	$3.95
6	Assumed Full-time Hours Worked per Year	2,080
7	Annual Wage Increase per Worker	$8,222
8	Average Children Cared for per Worker [1]	6.50
9	Annual Subsidy Increase per Child	$1,265
10	Subsidized Children in Regulated Home-based Care [1]	154,693
11	Annual Cost of Subsidy Increase	**$195,684,265**

[1] "Characteristics of Home-based Early Care and Education Providers: Initial Findings from the National Survey of Early Care and Education." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2016-13, March 2016. Available at http://www.acf.hhs.gov/sites/default/files/opre/characteristics_of_home_based_early_care_and_education_toopre_032416.pdf.

JOB CREATION

We additionally performed an analysis to estimate the fiscal impact associated with the expansion of federal investments designed to increase the enrollment of children under the age of 5 in high-quality, center-based early care and education. As will be described below, we considered possible impact through this channel for both workers employed in the new jobs that would be created by the expansion as well as the potential increased labor participation of parents that would result from access to stable, affordable care arrangements; for both, the economic impact considers increased federal tax revenue, increased economic consumption, and a reduction in federal benefits spending.

As noted in our recommendations, as a starting point, implementation of the proposed ECE expansion could adopt the federal eligibility criteria currently used under CCDF to extend center-based early education to those children who are eligible but not currently being served. The U.S. Department of Health and Human Services already tracks CCDF eligibility and enrollment data, and this measure would prioritize the expansion to lower income families who because of their employment or participation in school or training are most urgently in need of assistance. An estimate of the cost—$58 billion and early care and education staffing positions—1.24 million—that would be created under this framework is outlined in Exhibit F1, using the latest available CCDF data. However, because we do not know the current care arrangements of CCDF-eligible children, use of CCDF data alone potentially compromises job creation estimates, since some eligible but unserved children are likely to be currently

enrolled in formal care. Alternatively, to analyze the new jobs to be created and their resulting economic impact that would stem from our recommended expansion, we used data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP), specifically Wave 8 of the 2008 panel which includes the most recent publicly available child care data from January 2011 to April 2011. To avoid concerns relating to job supplantation and to start by targeting those children most in need, for purposes of developing the job creation and economic impact estimates we considered only the opportunities posed by expanding access to children age zero to five with incomes below 200 percent FPL who are identified as "not currently in a regular care arrangement." This includes low-income children whose parents are employed, unemployed, in school or training, or out of the labor force.

Based on 2011 SIPP data, we have estimated the number of children under 5 from families making below 200 percent of the federal poverty line who are not presently in a regular child care arrangement in Exhibit F2. Just under 5 million children would qualify based on these criteria; approximately 4.2 million live in families where the child's main guardian was unemployed for at least a month, and the remaining 800,000 have a guardian who had been employed for at least a month prior to being surveyed. Using this data, we have estimated the number of teacher's aides, teacher's assistants, and head teachers that would be required under the staffing targets enumerated in Recommendation 2 of this paper. At full enrollment of this cohort, the program cost would be approximately $62 billion and approximately 1.3 million jobs would be created.

Exhibits G1-G3 analyze the cost and short-term fiscal benefits of this program if applied only to working families. Exhibit G1 calculates a cost of approximately $9.7 billion associated with this enrollment population, and estimates that approximately 208,000 jobs would be created just by enrolling eligible students whose main guardian is employed. Those additional jobs would, by our assumptions, drive approximately $1.1 billion in tax revenue and approximately $5.9 billion in extra consumption.

Exhibit G1 assumes that, on average, a newly enrolled child would allow an underemployed parent to work an additional 500 hours per year on average. We have applied the weighted-average minimum wage of the 50 states plus Washington D.C. to estimate the incremental workforce income associated with these hours. We have assumed a weighted average marginal tax rate of 5 percent (because these families would by definition earn below 200 percent of the federal poverty line prior to the incremental hours worked) to estimate federal tax revenue associated with this increase. Additionally, the previously cited 120 percent spending multiple associated with a minimum wage increase was applied to estimate increased consumption associated with higher earnings among the parents of enrollees.

Exhibit F2 estimates a target reduction in federal benefits to working families that could derive from the proposal. Estimating the decreased use of public assistance is challenging since it will vary based on whether the new employee was previously working, or had no earned income. To demonstrate a fraction of the benefit that might accrue from new job creation, we developed a conservative analysis of the cost savings in public assistance based on data included in the Economic Policy Institute's 2016 report, "Balancing Paychecks and Public Assistance: How Higher Wages Would Strengthen What Government Can Do." Specifically, since the

EXHIBIT F1a. CCDF-based Eligibility - Qualifying Children: Cost to Serve

NUMBER ELIGIBLE [1]					
AGE	<100% FPL	100-149% FPL	150-199% FPL	>200% FPL, <85% SMI	TOTAL
0	303,900	177,500	150,800	271,400	903,600
1	338,400	214,100	206,100	255,300	1,013,900
2	343,000	243,000	185,000	312,300	1,083,300
3	332,300	283,000	229,000	262,300	1,106,600
4	331,400	236,300	253,700	291,700	1,113,100
5	333,000	245,300	258,200	280,700	1,117,200
Total	**1,982,000**	**1,399,200**	**1,282,800**	**1,673,700**	**6,337,700**

NUMBER RECEIVING BENEFITS [2]					
AGE	<100% FPL	100-149% FPL	150-199% FPL	>200% FPL, <85% SMI	TOTAL
0	77,060	21,520	5,640	810	105,030
1	146,360	50,160	13,980	2,030	212,530
2	179,010	71,230	22,090	3,380	275,710
3	194,210	86,030	27,890	4,780	312,910
4	182,950	88,310	29,470	5,270	306,000
5	141,000	65,580	21,710	3,940	232,230
Total	**920,590**	**382,830**	**120,780**	**20,210**	**1,444,410**

ELIGIBLE WITHOUT ASSISTANCE					
AGE	<100% FPL	100-149% FPL	150-199% FPL	>200% FPL, <85% SMI	TOTAL
0	226,840	155,980	145,160	270,590	798,570
1	192,040	163,940	192,120	253,270	801,370
2	163,990	171,770	162,910	308,920	807,590
3	138,090	196,970	201,110	257,520	793,690
4	148,450	147,990	224,230	286,430	807,100
5	192,000	179,720	236,490	276,760	884,970
Total	**1,061,410**	**1,016,370**	**1,162,020**	**1,653,490**	**4,893,290**

EXHIBIT F1b. CCDF-based Eligibility - Qualifying Children: Projected Job Creation

AGE	MAX CLASS SIZE	TOTAL # OF CLASSES <100% FPL	100-149% FPL	150-199% FPL	<200%FPL, < 85% AMI	TOTAL
0	6	37,807	25,997	24,193	45,098	133,095
1	8	24,005	20,493	24,015	31,659	100,171
2	8	20,499	21,471	20,364	38,615	100,949
3	14	9,864	14,069	14,365	18,394	56,692
4	16	9,278	9,249	14,014	17,902	50,444
5	16	12,000	11,233	14,781	17,298	55,311
Total		**113,452**	**102,512**	**111,732**	**168,966**	**496,662**

AGE	TEACHER'S AIDE STAFFING NEEDED	SALARY [3]	COST	TEACHER'S ASSISTANT STAFFING NEEDED	SALARY [4]	COST	HEAD TEACHER STAFFING NEEDED	SALARY [5]	COST
0	133,095	$31,200	$4,152,564,000	133,095	$36,816	$4,900,025,520	66,548	$51,640	$3,436,512,900
1	100,171	31,200	3,125,343,000	100,171	36,816	3,687,904,740	50,086	51,640	2,586,421,675
2	100,949	31,200	3,149,601,000	100,949	36,816	3,716,529,180	50,474	51,640	2,606,496,725
3	56,692	31,200	1,768,794,857	56,692	36,816	2,087,177,931	28,346	51,640	1,463,791,129
4	50,444	31,200	1,573,845,000	50,444	36,816	1,857,137,100	25,222	51,640	1,302,457,625
5	55,311	31,200	1,725,691,500	55,311	36,816	2,036,315,970	27,655	51,640	1,428,120,338
Total	**496,662**	**$31,200**	**$15,495,839,357**	**496,662**	**$36,816**	**$18,285,090,441**	**248,331**	**$51,640**	**$12,823,800,391**

AGE	SALARY COST	FRINGE COST [6]	TOTAL COST	TOTAL COST PER CHILD	TOTAL JOBS	COST PER JOB
0	$12,489,102,420	$3,122,275,605	$15,611,378,025	$19,549	332,738	$46,918
1	$9,399,669,415	$2,349,917,354	$11,749,586,769	$14,662	250,428	$46,918
2	$9,472,626,905	$2,368,156,726	$11,840,783,631	$14,662	252,372	$46,918
3	$5,319,763,917	$1,329,940,979	$6,649,704,896	$8,378	141,730	$46,918
4	$4,733,439,725	$1,183,359,931	$5,916,799,656	$7,331	126,109	$46,918
5	$5,190,127,808	$1,297,531,952	$6,487,659,759	$7,331	138,277	$46,918
Total	**$46,604,730,190**	**$11,651,182,547**	**$58,255,912,737**	**$11,905**	**1,241,654**	**$46,918**

[1] ASPE Issue Brief: Estimates of Child Care Eligibility and Receipt for Fiscal Year 2012, November 2015, Appendix Table 1.

[2] ASPE Issue Brief: Estimates of Child Care Eligibility and Receipt for Fiscal Year 2012, November 2015, Appendix Table 3.

[3] Teacher's Aide costs at $31,200 per year ($15.00 per hour for 2,080 hours); assumes one Teacher's Aide per class.

[4] Teacher's Assistant costs at $36,816 per year ($17.70 per hour for 2,080 hours). Teacher's Assistant calculated at +18% of Teacher's Aide salary, reflecting current premium -- see NSECE. Assumes one Teacher's Assistant per class.

[5] Head Teacher costs at $51,640 per year ($24.83 per hour for 2,080 hours); assumes one Head Teacher per every two classes.

[6] Assumes benefits equivalent to 25% of wages.

unemployment rate of those with a high school degree is 5.1 percent as of September, 2016, we assume that 5 percent of new Teacher's Aides, or approximately 4,500, would have been previously unemployed. We assume that these previously unemployed workers' salaries would increase by approximately $15 and the remaining, previously employed teacher's aides would have wage increases of approximately $6.72 on average ($15 less the weighted average of state minimum wages). This implies a weighted average $7.17 wage increase for these workers. We applied the same methodology as in Exhibits B2 and C2, using data from the Cooper paper, to estimate a $119 million reduction in reliance on public benefits associated with the creation of these teacher's aide jobs.

Exhibit G3 adds the previously calculated tax, consumption, and productivity benefits associated with the job creation aspect of the proposal and finds that they could offset approximately 73 percent of the cost of the proposal under the stated assumptions.

Exhibits H1-H3 apply the same analysis to the population of children whose main guardian was unemployed for at least a month, or in school or job training. The included assumptions are similar, with the following exceptions:

- An increased employment of 1,250 hours per parent are assumed, since the parents of the enrollees in this scenario would be unemployed prior to their children's enrollment.
- No incremental tax rate is applied since the model only assumes approximately $10,000 in income per family.

Exhibit H3 reaches the conclusion that the short-term benefits of the proposal could meet or even exceed its costs—with accrued benefits valued at 123 percent of costs—as it relates to children whose main guardian was unemployed for at least a month, or in school or job training.

EXHIBIT F2. SIPP Data - Qualifying Children by Parental Employment: Cost to Serve and Projected Job Creation

AGE	CHILDREN WITHOUT ARRANGEMENT	MAX CLASS SIZE	TOTAL NUMBER OF CLASSES
Less than 1 year	906,611	6	151,102
1-2 years	1,942,758	8	242,845
3-4 years	2,103,938	16	131,496
ALL	**4,953,307**		**525,443**

	TEACHER'S AIDE [3]			TEACHER'S ASSISTANT [4]			HEAD TEACHER [5]		
AGE	STAFFING NEEDED	SALARY	COST	STAFFING NEEDED	SALARY	COST	STAFFING NEEDED	SALARY	COST
Less than 1 year	151,102	$31,200	$4,714,377,200	151,102	$36,816	$5,562,965,096	75,551	$51,640	$3,901,449,337
1-2 years	242,845	$31,200	$7,576,756,200	242,845	$36,816	$8,940,572,316	121,422	$51,640	$6,270,251,445
3-4 years	131,496	$31,200	$4,102,679,100	131,496	$36,816	$4,841,161,338	65,748	$51,640	$3,395,229,948
ALL	**525,443**	**$31,200**	**$16,393,812,500**	**525,443**	**$36,816**	**$19,344,698,750**	**262,721**	**$51,640**	**$13,566,930,729**

AGE	SALARY COST	FRINGE COST [6]	TOTAL COST	TOTAL COST PER CHILD	TOTAL JOBS	COST PER JOB	ENROLLED CHILDREN PER JOB CREATED
Less than 1 year	$14,178,791,633	$3,544,697,908	$17,723,489,541	$19,549	377,755	$46,918	2.40
1-2 years	$22,787,579,961	$5,696,894,990	$28,484,474,951	$14,662	607,112	$46,918	3.20
3-4 years	$12,339,070,386	$3,084,767,596	$15,423,837,982	$7,331	328,740	$46,918	6.40
ALL	**$49,305,441,979**	**$12,326,360,495**	**$61,631,802,474**	**$12,443**	**1,313,607**	**$46,918**	**3.77**

AGE	EMPLOYED PARENTS	UNEMPLOYED PARENTS	TOTAL
Less than 1 year	167,070	739,541	906,611
1-2 years	290,816	1,651,942	1,942,758
3-4 years	325,531	1,778,407	2,103,938
ALL	**783,416**	**4,169,890**	**4,953,307**

[1] See "Survey of Income and Program Participation (SIPP) 2008 Panel: Wave 8 Core Microdata File." U.S. Census Bureau, retrieved 21 November 2016. Available at http://www.census.gov/content/dam/Census/programs-surveys/sipp/tech-documentation/complete-documents/2008/SIPP%20 2008%20Panel%20Wave%2008%20-%20Core%20File.pdf; see also "Survey of Income and Program Participation (SIPP) 2008 Panel: Wave 8 Topical Module Microdata File." U.S. Census Bureau, retrieved 21 November 2016. Available at http://www.census.gov/content/dam/Census/programs-surveys/sipp/tech-documentation/complete-documents/2008/SIPP%202008%20Panel%20Wave%2008%20-%20Topical%20Module.pdf.

[2] "Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs." American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education, University of Colorado, 3rd Edition, 2011. Available at http://cfoc.nrckids.org/webfiles/CFOC3_updated_final.pdf.

[3] Teacher's Aide costs at $31,200 per year ($15.00 per hour for 2,080 hours); assumes one Teacher's Aide per class.

[4] Teacher's Assistant costs at $36,816 per year ($17.70 per hour for 2,080 hours). Teacher's Assistant calculated at +18% of Teacher's Aide salary, reflecting current premium -- see NSECE. Assumes one Teacher's Assistant per class.

[5] Head Teacher costs at $51,640 per year ($24.83 per hour for 2,080 hours); assumes one Head Teacher per every two classes.

[6] Assumes benefit increase equivalent to 25% of wage increase. We based this figure on the share of total compensation for benefit costs for service workers in service-providing industries was 23.8 percent, as defined in "Employer Costs for Employee Compensation, Table 9: Employer Costs Per Hour Worked For Employee Compensation And Costs As A Percent Of Total Compensation: Private Industry Workers, Goods-Producing And Service-Providing Industries, By Occupational Group, June 2016." U.S. Bureau of Labor Statistics, 8 September 2016.

EXHIBIT G1. Job Creation Model (Underemployed Parents) - Consumption and Tax Benefits from New Jobs

				FORMULA
1	Eligible Children without Subsidy (Underemployed Parents)	[1]	783,416	[A]
2	Eligible Children per Eligible Family	[2]	1.20	[B]
3	Eligible Families without Arrangement		652,847	[C]
4	Portion of Eligible Families who Enroll in Plan	[3]	100.0%	[D]
5	Families who Enroll in Plan		652,847	[C] * [D] = [E]
6	Annual Incremental Hours per Worker	[4]	500	[F]
7	Annual Incremental Hours Worked		326,423,458	[E] * [F] = [G]
8	Average Minimum Wage	[5]	$8.28	[H]
9	Incremental Workforce Income (Parents)		$2,703,106,258	[G] * [H] = [I]
10	Average Tax Rate (Parents)	[6]	5.0%	[J]
11	Incremental Tax Revenue (Parents)		$135,155,313	[I] * [J] = [K]
12	Post-tax Incremental Wages (Parents)		$2,567,950,945	[I] - [K] = [L]
13	Low Income Spending Multiplier	[7]	120%	[M]
14	Increased Consumption (Parents)		$3,081,541,134	[L] * [M] = [N]
15	Enrolled Children per Job Created	[1]	3.77	[O]
16	Jobs Created		207,760	([A] * [D]) / [O] = [P]
17	Wage and Benefit Cost per Child	[1]	$12,443	[Q]
18	Wages and Benefits to Education Professionals at 100% Enrollment		$9,747,701,618	[A] * [Q] = [R]
19	Enrollment Rate	[2]	100.0%	[D]
20	Wages and Benefits to Education Professionals		$9,747,701,618	[R] * [D] = [S]
21	Average Tax Rate (Educators)	[8]	10.0%	[T]
22	Incremental Tax Revenue (Educators)		$974,770,162	[S] * [T] = [U]
23	Post-tax Wages (Educators)		$8,772,931,456	[S] - [U] = [V]
24	Educator Spending Multiplier (Low-End)	[9]	31.8%	[W]
25	Increased Consumption (Educators)		$2,785,405,737	[V] * [W] = [X]
26	Incremental Tax Revenue (Parents)		$135,155,313	[K]
27	Incremental Tax Revenue (Educators)		974,770,162	[U]
28	Total Incremental Tax Revenue		$1,109,925,475	[K] + [U] = [Y]
29	Increased Consumption (Parents)		$3,081,541,134	[N]
30	Increased Consumption (Educators)		2,785,405,737	[X]
31	**Total Increased Consumption**		**$5,866,946,871**	[N] + [X] = [Z]

[1] See Exhibit F2.

[2] Assumption per US Census Data - average number of children 5 years old or younger per family including at least one such child.

[3] Assumes full enrollment, cost of program would be lower for less than full enrollment.

[4] Assumption for increase in hours for undermployed (but non-unemployed) parents.

[5] Weighted average of state minimum wages, weighted by state populations

[6] Assumption based on qualifying families at <200% of Poverty Level.

[7] See Cooper, D. and Hall, D. (2013). Raising the Federal Minimum Wage to $10.10 Would Give Working Families, and the Overall Economy, a Much-Needed Boost. Washington, DC: Economic Policy Institute. The authors average the stimulus multipliers developed by Mark Zandi of Moody's Analytics for the Earned Income Tax Credit and the Making Work Pay tax credit in the American Recovery and Reinvestment Act (ARRA) as a reasonable fiscal stimulus multiplier for increased spending from increased compensation of low wage workers. <http://www.epi.org/publication/ib341-raising-federal-minimum-wage/>; this study cites a 1.2x GDP multiplier for increases in compensation of low-wage workers.. This spending multiple relates to minimum wage workers and has thus been used here.

[8] Average estimate for all educator types and education levels.

[9] See Exhibit B4. Low-end consumption multiplier used here to be conservative.

EXHIBIT G2. Job Creation Model (Underemployed Parents) - Productivity and Reduced Tax Burden Benefits from New Teacher Aide Jobs

1	Portion of Teacher's Aides previously unemployed	[1]	5.4%
2	Portion of Teacher's Aides previously employed		94.6%
3	Wage increase for portion previously unemployed	[2]	$15.00
4	Wage increase for portion previously employed	[3]	$6.72
5	Weighted average wage increase for Teacher's Aides		$7.17
6	Reduction in Public Benefits per Worker per $1 Hourly Wage Increase	[4]	$199.49
7	Reduction in Public Benefits per Worker		$1,429.58
8	New Jobs for Teacher's Aides at 100% Enrollment	[5]	83,104
9	Reduction in Public Benefits through Teacher's Aide Jobs		**$118,804,347**

[1] Uses the unemployment rate for people with High school diplomas, per <https://www.bls.gov/emp/ep_chart_001.htm>.

[2] Assumes $15 target wage for Teacher's Aides.

[3] Assumes $15 target wage for Teacher's Aides less $8.28 weighted average of state median wages.

[4] Cooper, David, "Balancing paychecks and public assistance," February 2016. Retreived from <http://www.epi.org/publication/wages-and-transfers/>. Reduction in benefits per $1 hourly wage increase estimated based on a comparison of median hourly wage for each cohort in this model to the "Average hourly wage of workers in this range" value in Table 3 of the Cooper Paper. For the nearest average hourly wage to the median wage of each cohort, the "All means-tested government assistance" value from Table 3 was applied.

[5] See Exhibit F2 and Exhibit G1; a teacher's aide job is created for every 9.3 students.

EXHIBIT G3. Job Creation Model (Underemployed Parents) - Aggregate Short-Term Benefits

1	Total Incremental Federal Tax Revenue	[1]	$1,109,925,475
2	Total Incremental Consumption	[1]	5,866,946,871
3	Teacher's Aide Public Benefit Reduction	[2]	118,804,347
4	Total Short-Term Social Benefits		$7,095,676,693
5	Total Program Cost (at 100.0% Enrollment)	[1]	$9,747,701,618
6	Short-Term Social Benefits (as a percentage of program cost)		**72.8%**

[1] See Exhibit G1.

[2] See Exhibit G2.

EXHIBIT H1. Job Creation Model (Unemployed Parents) - Consumption and Tax Benefits from New Jobs

				EXPLANATION
1	Eligible Children without Subsidy (Unemployed Parents)	[1]	4,169,890	[A]
2	Eligible Children per Eligible Family	[2]	1.20	[B]
3	Eligible Families without Arrangement		3,474,909	[C]
4	Portion of Eligible Families who Enroll in Plan	[3]	100.0%	[D]
5	Families who Enroll in Plan		3,474,909	[C] * [D] = [E]
6	Annual Incremental Hours per Worker	[4]	1,250	[F]
7	Annual Incremental Hours Worked		4,343,635,833	[E] * [F] = [G]
8	Average Minimum Wage	[5]	$8.28	[H]
9	Incremental Workforce Income (Parents)		$35,969,563,167	[G] * [H] = [I]
10	Average Tax Rate (Parents)	[6]	0.0%	[J]
11	Incremental Tax Revenue (Parents)		$-	[I] * [J] = [K]
12	Post-tax Incremental Wages (Parents)		$35,969,563,167	[I] - [K] = [L]
13	Low Income Spending Multiplier	[7]	120%	[M]
14	Increased Consumption (Parents)		$43,163,475,800	[L] * [M] = [N]
15	Enrolled Children per Job Created	[1]	3.77	[O]
16	Jobs Created		1,105,846	([A] * [D]) / [O] = [P]
17	Wage and Benefit Cost per Child	[1]	$12,443	[Q]
18	Wages and Benefits to Education Professionals at 100% Enrollment		$51,884,097,124	[A] * [Q] = [R]
19	Enrollment Rate	[2]	100.0%	[D]
20	Wages and Benefits to Education Professionals		$51,884,097,124	[R] * [D] = [S]
21	Average Tax Rate (Educators)	[8]	10.0%	[T]
22	Incremental Tax Revenue (Educators)		$5,188,409,712	[S] * [T] = [U]
23	Post-tax Incremental Wages (Educators)		$46,695,687,411	[S] - [U] = [V]
24	Educator Spending Multiplier (Low-End)	[9]	31.8%	[W]
25	Increased Consumption (Educators)		$14,825,880,753	[V] * [W] = [X]
26	Incremental Tax Revenue (Parents)		$-	[K]
27	Incremental Tax Revenue (Educators)		5,188,409,712	[U]
28	Total Incremental Tax Revenue		$5,188,409,712	[K] + [U] = [Y]
29	Increased Consumption (Parents)		$43,163,475,800	[N]
30	Increased Consumption (Educators)		14,825,880,753	[X]
31	**Total Increased Consumption**		**$57,989,356,553**	[N] + [X] = [Z]

[1] See Exhibit F2.

[2] Assumption per US Census Data - average number of children 5 years old or younger per family including at least one such child.

[3] Assumes full enrollment, cost of program would be lower for less than full enrollment.

[4] Assumption for increase in hours for unemployed parents.

[5] Weighted average of state minimum wages, weighted by state populations

[6] Assumes no incremental tax income given likely low income of most recipients even after gaining employment.

[7] See Exhibit B4. This spending multiple relates to minimum wage workers and has thus been used here.

[8] Average estimate for all educator types and education levels.

[9] See Exhibit B4. Low-end consumption multiplier used here to be conservative.

EXHIBIT H2. Job Creation Model (Unemployed Parents) - Productivity and Reduced Tax Burden Benefits from New Teacher Aide Jobs

1	Portion of Teacher's Aides previously unemployed	[1]	5.4%
2	Portion of Teacher's Aides previously employed		94.6%
3	Wage increase for portion previously unemployed	[2]	$15.00
4	Wage increase for portion previously employed	[3]	$6.72
5	Weighted average wage increase for Teacher's Aides		$7.17
6	Reduction in Public Benefits per Worker per $1 Hourly Wage Increase	[4]	$199.49
7	Reduction in Public Benefits per Worker		$1,429.58
8	New Jobs for Teacher's Aides at 100% Enrollment	[5]	442,339
9	Reduction in Public Benefits through Teacher's Aide Jobs		**$632,360,012**

[1] Uses the unemployment rate for people with High school diplomas, per <https://www.bls.gov/emp/ep_chart_001.htm>.

[2] Assumes $15 target wage for Teacher's Aides.

[3] Assumes $15 target wage for Teacher's Aides less $8.28 weighted average of state median wages.

[4] Cooper, David, "Balancing paychecks and public assistance," February 2016. Retreived from <http://www.epi.org/publication/wages-and-transfers/>. Reduction in benefits per $1 hourly wage increase estimated based on a comparison of median hourly wage for each cohort in this model to the "Average hourly wage of workers in this range" value in Table 3 of the Cooper Paper. For the nearest average hourly wage to the median wage of each cohort, the "All means-tested government assistance" value from Table 3 was applied.

[5] See Exhibit F2 and Exhibit G2; 525,443 total Teacher's Aide jobs created less 83,104 jobs associated with underemployed (rather than unemployed) parent eligibility.

EXHIBIT H3. Job Creation Model (Unemployed Parents) - Aggregate Short-Term Benefits

1	Total Incremental Federal Tax Revenue	[1]	$5,188,409,712
2	Total Incremental Consumption	[1]	57,989,356,553
3	Target Taxpayer Cost Reduction	[2]	632,360,012
4	Total Short-Term Social Benefits		$63,810,126,277
5	Total Program Cost (at 100% Enrollment)	[1]	$51,884,097,124
6	Short-Term Social Benefits (as a percentage of program cost)		**123.0%**

[1] See Exhibit H1.

[2] See Exhibit H2.

[i] National Survey of Early Care and Education, October 2013. Because some centers may receive only state or local funding, for the purposes of this analysis, our inclusion of them may overestimate the number of staff eligible for wage increases, and thus the program cost.

[ii] "Characteristics of Center-Based Early Care and Education Programs: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2014-73a, November 2014. Available at http://www.acf.hhs.gov/sites/default/files/opre/characteristics_of_cb_ece_programs_111014.pdf. Enrollment information from 1,000 programs was not available, and is not included in this total. Note also that the share of

[iii] "Characteristics of Center-Based Early Care and Education Programs: Initial Findings from the National Survey of Early Care and Education (NSECE)." Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2014-73a, November 2014. Available at http://www.acf.hhs.gov/sites/default/files/opre/characteristics_of_cb_ece_programs_111014.pdf. See exhibit 12. Enrollment information from 1,000 programs was not available, and is not included in this total. Note also that the share of centers reporting no public funding in Exhibit 12 differs from the share included in Exhibit 14 (25.7 percent).

[iv] Child Care and Development Fund Program; Final Rule, 81 Fed.Reg. 67438, 67554 (published 30 September 2016). Available at https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program.

[v] We based this figure on the share of total compensation for benefit costs for service workers in service-providing industries was 23.8 percent, as defined in "Employer Costs for Employee Compensation, Table 9: Employer Costs Per Hour Worked For Employee Compensation And Costs As A Percent Of Total Compensation: Private Industry Workers, Goods-Producing And Service-Providing Industries, By Occupational Group, June 2016." U.S. Bureau of Labor Statistics, 8 September 2016.

[vi] "Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)." NSECE Research Brief, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, OPRE Report #2013-38, October 2013. Available at https://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

[vii] Whitebook et. al. Worthy Work.

[viii] For a review of research on aggregate expenditures of public programs on low wage workers, see Cooper, D. (February 3, 2016). "Balancing paychecks and public assistance: How higher wages would strengthen what government can do." Washington, DC: Economic Policy Institute. Available at http://www.epi.org/publication/wages-and-transfers/

[ix] Author's communication with J. Albright, Office of Child Care, Administration for Children and Families, U.S. Department of Health and Human Services, 13 June 2016.

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ECE Arrangement Data Used for Analysis

The economic simulation requires data on child care arrangements by household income levels. The most recent and reliable available data on this topic comes from the U.S. Census Bureau's Survey of Income and Program (SIPP), which is a nationally representative longitudinal survey that households for approximately four years. Wave 8 of the 2008 panel includes the most recent publicly available child care data. The sample in each wave consists of 4 rotation groups, each interviewed in a different month. For Wave 8, the interview months were from January 2011 to April 2011. For each group, the reference period for reporting labor force activity and income is the four calendar months preceding the interview month. In other words, respondents are being asked questions related to economic well-being in the prior four calendar months.[781]

To calculate the child care arrangement figures informing the economic simulation, two dataset types, the Core and Topical Module (TM), were used.[782] Within the TM, the following Topics were analyzed: Annual Income and Retirement Accounts; Taxes; Child Care; Work Schedule.[783]

Universe of Created Dataset

Using the variables from both the Core and TM datasets of Wave 8 of the 2008 Panel, we followed guidance from a published and nationally recognized SIPP researcher. We kept only observations corresponding to individuals under 5 years old. Within that universe, we limited the analysis to children with a guardian or parent and to all children for whom information about child care was missing, since we are concerned with only parent unemployment status and children in irregular child care. Following best practices, only responses given in the fourth reference month (the most recent calendar month), were used.

Variables Created

The following variables were created by the authors from existing SIPP data to distinguish between types of child care arrangement, income and poverty status, presence of a parent or guardian, and unemployment status and reasons:

TYPE OF CHILD CARE ARRANGEMENT

eckd01

- At least once a week for the past month, arrangement of other parent or stepparent

eckd02

- At least once a week for the past month, arrangement of parent or guardian

eckd03

- At least once a week for the past month, arrangement of sibling age 15 or older

eckd04

- At least once a week for the past month, arrangement of sibling aged under 15

eckd05

- At least once a week for the past month, arrangement of grandparent

eckd06

- At least once a week for the past month, arrangement of any other relative

eckd07

- At least once a week for the past month, arrangement of family daycare provider

eckd08

- At least once a week for the past month, arrangement of child or day care center

eckd09

- At least once a week for the past month, arrangement of nursery or preschool

eckd10

- At least once a week for the past month, arrangement of Head Start program

eckd11

- At least once a week for the past month, arrangement of a non-relative

notregular

- A binary variable flag denoting when the child is in irregular child care—or some form of child care not included in the eckd variables above.

INCOME AND POVERTY

thtotinc_avg

- Average household income over the time period of the wave

rhpov_avg

- Average household poverty threshold over the time period of the wave

hpovlevel

- Household average poverty level
- = (thtotinc_avg/rhpov_avg)

PARENT OR GUARDIAN IDENTIFICATION

parentnum

- The individual ID of the primary guardian or parent in the household.
- Mostly composed of parent IDs flagged as the primary guardian; if no guardian was flagged, I used the mother's ID, since the majority of parents flagged as guardians were mothers; if no guardian or mother is flagged, I used the father's ID.

parentnum1

- The string version of parentnum that is compatible with the individual ID variable epppnum

parent

- Binary variable that flags if someone is the parent as defined in parentnum (parent=1 if an individual is a parent, 0 if not, '.' if otherwise)

UNEMPLOYMENT

unemployed

- Binary variable representing the employment status of the parent as defined in parentnum (unemployed=1 if the parent is unemployed, 0 if employed, '.' otherwise)
- Employed includes any parent with a job the entire month; unemployed includes those without a job for part or all of the month

runemployed

- Reasons for parents' unemployment.
  - Employed (runemploymed==0)
  - Taking care of children/other persons (runemployed==1; ersnowrk==6)
  - Labor force participation (Unable to find work; On layoff; Not interested in working at a job) (runemployed==3; ersnowrk==8 | ersnowrk==9 | ersnowrk==10)
  - Other: Temporarily unable to work because of injury or illness, unable to work because of chronic health condition or disability, retired, pregnancy/childbirth (runemployed==4; ersnowrk==1 | ersnowrk==2 | ersnowrk==3 | ersnowrk==5 | ersnowrk==4| ersnowrk==11)

Weighting

Finally, data were weighted using the final person weight for family reference person (Variable: wpfinwgt), as provided by the Census Bureau.

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509 Supra note 22.

510 Supra note 21.

511 Supra note 22.

512 Ibid.

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