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# Breaking the silence on early child care and education costs: A values-based budget for children, parents, and teachers in California

COMPENSATION July 23, 2019



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BY ELISE GOULD, MARCY WHITEBOOK, ZANE MOKHIBER AND LEA J.E. AUSTIN

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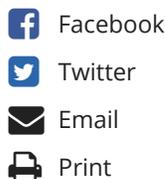
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**What this report finds:**

California's child early care and education (ECE) system is underfunded, and California policymakers have not been willing to acknowledge the true cost of creating a comprehensive ECE system. Proposals for ECE reform have focused primarily on improving access and affordability for families but have ignored the elephant in the room: Early care and education is substantially "funded" through low teacher pay and inadequate supports for ECE teachers. In addition to being a serious injustice, lack of adequate financial and professional supports for ECE teachers compromises the consistency and quality of care children receive.

**Why it matters:** Before they enter kindergarten, young children need consistent care from teachers who are well prepared and well supported. Working parents need access to dependable, high-quality, affordable child care. And we need to send a message that the work of teaching young children, performed primarily by African American and Hispanic women, is a valuable and respected occupation in California. Early care and education should no longer be financed through low teacher pay.

**What can be done about it:** Policymakers and other stakeholders have an opportunity to disrupt the status quo and ensure that California's ECE system has the funding it needs to work effectively for children, families, and teachers. In this report, we develop an estimate of what it would cost to provide high-quality and comprehensive early care and education for California's families that doesn't overburden them financially or come at the expense of ECE teachers. The total estimated annual cost of a fully phased-in system ranges from \$29.7 to \$75.4 billion, or \$30,000 to \$37,000 per child. The total cost depends largely on the number of children that would participate in such a system.

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Early care and education (ECE) systems provide care and instruction to children before they enter kindergarten, i.e., to infants and children generally younger than five years old. The systems include the educators providing the care and instruction and the resources to access that care. California's early care and education system—like ECE in all states—shortchanges children, families, and teachers. It represents a key component of the state's weakening infrastructure—infrastructure that was created decades ago and that desperately needs major overhaul. Meaningful and effective reform requires a significant investment if we want our children to get off to a good start, if we want to help parents balance work and family life, and if we want to secure skilled and stable early educators to provide quality services.

Currently, state and federal financing fall short of serving all families who are eligible for child care subsidies, and many more families who are not eligible for subsidies are also heavily burdened by the cost of child care. In our largely market-based system, children's access to services and the quality of those services are chiefly determined by their families' ability to pay. At the same time, teachers are underpaid, and many are financially insecure, living dangerously close to or below the poverty line, which places their own families at risk. As a result, many early educators are driven to seek additional employment to make ends meet.

The amount of funding available for the workforce is the linchpin of a successful early care and education system. Without well-qualified and fairly compensated early educators, ECE programs will not be able to provide and sustain a high standard of care for the children of California.

There is no justifiable defense of the status quo from a developmental, economic, or equity perspective and, in fact, there are compelling reasons to disrupt the system currently in place. What is needed for the children, parents, and the economy of California is a values-based budget for early care and education—one that ensures access to high-quality services for all children, lifts the heavy cost burden from families, and gives early

educators the respect and pay their work deserves. This paper makes the case for aligning the costs of our ECE system with what is required to create a strong and sustainable system. Herein, we model a system to meet the needs of all families in California and solve the myriad problems the current system fails to address.

## Key takeaways

### **Child care costs too much for many California families. The result is:**

- High-quality child care is out of reach for many California families.
- The typical California family with young children is unable to meet the recommended affordability standard (that no more than 7 percent of income be spent on child care); for example, to obtain center-based care for an infant, the typical family must spend 25 percent of their annual income.

### **High-quality early educators in California are undervalued and underpaid. The result is:**

- Economic and food insecurity is common among these workers, who are almost exclusively women and the majority of whom are people of color.
- Early educators are twice as likely as other California workers and six times as likely as K–12 teachers to live in poverty.
- There are high levels of turnover among early educators; this churn undermines the consistent relationships with adults that are essential for young children’s healthy development and makes it challenging to sustain the existing workforce, let alone expand to meet an increased demand for services.

### **The root cause of the problems with the early care and education system in California is underfunding.**

- What parents can afford to pay is not enough to provide teachers with a fair wage and ensure high-quality care and education for young children.

- Early educators are expected to underwrite the cost of the broken child care system with their low wages. This expectation is largely unchallenged.

### **A values-based budget for early care and education requires a meaningful investment.**

- The annual cost of a fully phased-in high-quality and comprehensive ECE system for California ranges from \$29.7 to \$75.4 billion, or \$30,000 to \$37,000 per child.
- The numbers above represent total annual costs. Because there are already many dollars invested in the current ECE system from various levels of government as well as directly from parents, the net new expenses required to fund this system are significantly lower.
- Because of the increased demand anticipated once the system is in place, additional investment is required to increase the size of the workforce—recruiting and training new teachers—for a total one-time additional cost of \$3.0 to \$9.7 billion.

## The problems

**Child care costs too much for many California families.** High-quality child care is out of reach for many California families—and not just those with low incomes. Combined state and federal investment falls far short of serving all eligible children who qualify for current subsidy programs, and most families relying on child care are heavily burdened by the cost (Ullrich, Schmit, and Cosse 2019; Thomason et al. 2018). The average fee for full-time early care and education in California ranges from \$11,200 a year for a four-year-old child to \$16,500 a year for an infant (CCA 2018). According to the Economic Policy Institute's Family Budget Calculator, child care costs are one of the most significant expenses in a family's budget (EPI 2018).

The Department of Health and Human Services deems early care and education affordable for families if it consumes 7 percent or less of a family's income (DHHS 2015). Unfortunately, the typical California family with young children cannot meet this affordability standard; to place an infant in a center-based ECE

program, for example, the typical family would have to spend 25 percent of their annual income (EPI 2019c). Child care expenses are even further out of reach for families with more than one child requiring care.

It is particularly difficult for low-wage workers—who are more likely to be women and, specifically, black or Hispanic women (Cooper 2019)—to afford child care. For a full-time, full-year minimum wage worker anywhere in California, child care costs as a share of income far exceed the recommended affordability standard of 7 percent of income. Even minimum wage workers in Emeryville—the California city with the highest minimum wage in the state (currently \$16.30/hour, or just under \$34,000 a year for full-time, full-year work)—would need to spend nearly 50 percent of their earnings on infant care. As a result, parents struggle financially and may have to forgo opportunities in the labor force, while many California children simply do not have access to high-quality early care and education.

### **Early educators in California are undervalued and underpaid.**

California's early educators, nearly all of whom are women and most of whom are women of color, closely match the racial and ethnic diversity of California as a whole and are substantially more diverse than K–8 teachers in the state, who are mostly white (Ruggles et al. 2019). This group of diverse women, however, work in one of the lowest-paid occupations in the state. Typical California early educators are paid just \$13 an hour, putting them in the 28th percentile of the wage distribution; in other words, more than 70 percent of California workers are paid higher wages than teachers of young children (Ruggles et al. 2019). And the younger the children in their care, the lower the pay. One-third of center-based teachers have bachelor's degrees but are still paid about 47 percent less than K–12 teachers with the same level of education. Teachers working full time with infants and toddlers are paid \$6,240 less per year, on average, than teachers working with three- to five-year-olds (Austin, Edwards, and Whitebook 2018). Educators of color are more likely than their white peers to work with the youngest children, and therefore be paid less (Whitebook, McLean, et al. 2018).

Pay is so low that significant economic and food insecurity are common among the early educator workforce in California (Austin, Edwards, and Whitebook 2018). Given their low pay, it is not surprising that early educators are twice as likely as other California workers and six times as likely as K-8 teachers to

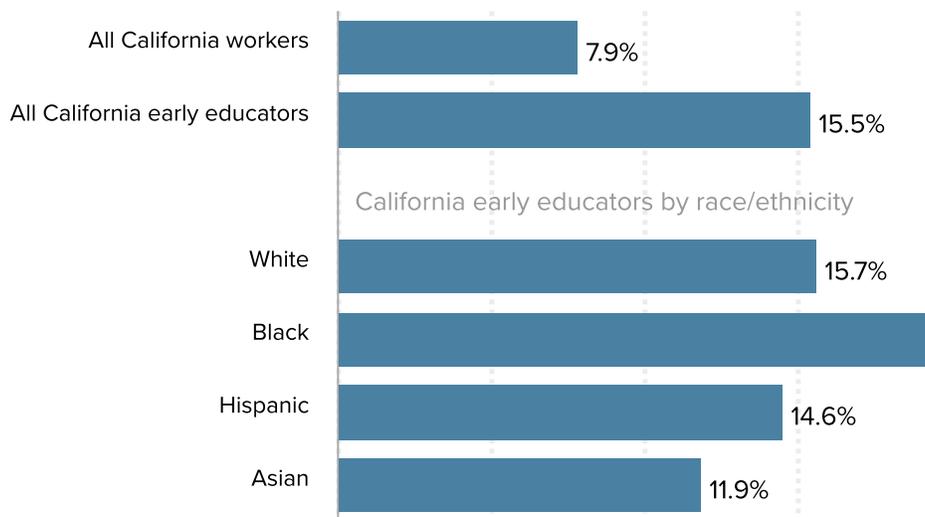
live in poverty (Ruggles et al. 2019). **Figure A** compares the rates of poverty among early educators in California with rates of poverty among all California workers; it also breaks down poverty rates by race/ethnicity. African American early educators are 50 percent more likely to be in poverty than their white peers.

*What parents can afford to pay is not enough to provide teachers with a fair wage and to provide high-quality care for young children.*

FIGURE A

## California early educators are more likely to live in poverty than other California workers

Shares of workers who live below the poverty line, all California workers, all California early educators, and California early educators by race/ethnicity



**Note:** Data for early educators include American Community Survey respondents in the child care workers occupational category and in the preschool and kindergarten teachers occupational category with public school workers excluded

**Low pay and poor working conditions affect the quality of care children receive.** Teachers' skills, knowledge, and well-being all affect the early learning and development of the children in their classrooms. There is compelling evidence from developmental science that high-quality ECE programs play an important role in shaping early learning and later school and life success. More recently, developmental science has also documented the negative consequences of stress, especially toxic levels resulting from trauma and poverty among children and the adults in their lives (IOM & NRC 2015). When ECE teachers are burdened with financial strain and poor working conditions, that stress can be transmitted to the children in their care.

Consistent relationships with caregivers and educators are critical for young children's learning and development, but low pay fuels high turnover rates and undermines efforts to attract new teachers. Under these conditions, it becomes nearly impossible to fill job openings, let alone expand services. In addition, when teachers live on the edge economically, it hinders their capacity to remain focused and to engage in the supportive teacher-child interactions that matter most for facilitating children's learning.

To support ECE teachers, we must not only improve their compensation; we must also ensure they have the professional support they need. Well-supported teachers are better equipped to respond to children's many needs, but inadequate resources and professional support compromise teacher practice and well-being. ECE work environments should reflect policies and practices that promote ongoing professional development and learning, teamwork and staff initiative, staff economic and physical well-being, and knowledgeable, supportive staff leadership. Studies identify positive relationships between early educators' perceptions of these conditions in their workplaces and observed measures of quality in ECE settings (Whitebook et al. 2016; Whitebook, Schlieber, et al. 2018).

**The root cause of the problems with the early care and education system in California is underfunding.** There has been an insufficient investment to address the multiple problems with the system. These problems include poor access to quality

services; families being driven to the edge economically by child care costs; parents' diminished participation in the labor force due to difficulties finding affordable, high-quality child care; low early educator earnings and resulting reliance on public supports; the high cost of turnover; and challenges recruiting and retaining workers (NASEM 2018). In addition, the current system drives inequities, as it results in inequitable access to high-quality services for children, greater cost burdens on the families with the least resources, and disparities in educator earnings based on the ages of children served and program funding sources—disparities that disproportionately impact African American members of the workforce (Whitebook, McLean, et al. 2018).

What parents can afford to pay is not enough to provide teachers with a fair wage and to provide high-quality care for young children. The United States as a whole is not investing enough—and certainly no single state is either—to secure a consistently high quality of care in early childhood services. In fact, the U.S. is lagging behind other countries. Almost all industrialized nations have recognized that it takes substantial public investment, even in a market-based system, to achieve high-quality early care and education that is affordable for families. While spending levels vary across countries, the United States spends below the average for industrialized countries tracked by the Organisation for Economic Co-operation and Development (OECD).<sup>1</sup>

To date, most efforts in the United States to improve both access to and quality of child care have amounted to no more than tinkering around the edges of the system. Decades of reform efforts, including investments of state and federal dollars, have failed to deliver meaningful changes, largely due to severely constrained public financing and an unwillingness, even among key stakeholders and advocates, to talk about what an equitable, high-quality system

*The amount of funding available for the workforce is the linchpin of a successful early care and education system.*

will cost and the necessity of far greater public investment than we have seen to date.

To the extent that greater public investment has been undertaken, it has focused primarily on increasing access for low-income children by expanding the subsidy system or by establishing public preschool. Increasingly, policymakers are also looking at how to make child care more affordable for families who do not currently qualify for subsidies. Only rarely, however, do increased investments target better working conditions and compensation for early educators, who are essential for program quality (Whitebook, Phillips, and Howes 2014; Whitebook, McLean, et al. 2018).

Efforts to envision better workforce policies and secure adequate funding have been constrained in part by an assumption that change must fit within the confines of the existing infrastructure and funding streams. Such constraints have undermined a comprehensive approach to quality improvement and workforce policies and have allowed practices like raising required qualifications for the workforce to move forward without linking them to resources that simultaneously address teachers' earnings and economic well-being (Whitebook, McLean, et al. 2018).

It is well known that personnel costs are the major determinant of the costs of services. The amount of funding available for the workforce is the linchpin of a successful early care and education system: Without well-qualified and fairly compensated early educators and without supportive working conditions, programs will not be able to provide and sustain a high standard of quality for the children in their care. California has yet to substantially address this reality. Up to now, the state has essentially allowed early educators to subsidize the system at a cost to themselves and their families—which, in turn, imposes a cost on the children and families that rely on their services.

Accounting for the elements necessary to support quality teaching practices—particularly in terms of qualifications, compensation, and adequate staffing levels and supports—is critical to articulating the realistic costs of a high-quality early care and

education system (Whitebook 2014). Given that cost estimates are used to inform policy and revenue strategies, it is necessary for policymakers and the public to understand just how large the gap is between the current system and the system that is needed, and to be able to design short- and long-term goals for progress in reforming the system.

## Building a values-based budget for California's early care and education system

Increasingly policymakers are beginning to recognize that we can't solve the child care crisis without a major investment. At long last, what were once hushed discussions about the true cost of early care and education have moved into the national discourse. In the recently released consensus report by the National Academies of Science, Engineering and Medicine (NASEM), *Transforming the Financing of Early Care and Education*, the case for reform is clearly stated:

*The deficiencies in the current system are hurtful to all children and families in need of ECE options and the adults who are ECE practitioners and educators—who are themselves often in extreme economic distress. (NASEM 2018)*

Acknowledging that “for too long the nation has been making do with ECE policies and systems that were known to be broken,” the report calls for a new national financing structure and increased public investment for early care and education. *Transforming the Financing* represents a sea change in the public discourse about the costs involved in creating an equitable, high-quality ECE system—as it makes clear that substantial new sources and levels of funding are requirements for reform.

Whereas NASEM's consensus report articulates principles for financing early care and education at a national level, the reality is that most policy and new investments in early education occur at the state level. In this report, we identify the investment required

to achieve the high-quality ECE system that California workers, parents, and children need and deserve.

In developing our estimates, we factor in the following: the estimated number of children whose parents will enroll them in the ECE system; what shares of these children we expect to be enrolled in home-based versus center-based care (which are subject to different regulations); the regulations that influence required expenditures, such as staffing ratios and space requirements; and what levels of pay, benefits, and professional working conditions are needed to attract and retain a highly skilled workforce.

Our estimates do not take into account how much money is already invested in this system. We strictly estimate the total cost required, not the net new cost.

Funding can come from a number of sources. However, this study does not tackle the funding mechanisms nor does it discuss what shares of funding should be provided by the federal government, the state of California, and contributions from parents. What is abundantly clear to us, though, is that early care and education should no longer be financed through low teacher pay.

## Aligning costs with values

Creating a values-based budget for early care and education requires aligning costs with what is needed. Well-prepared and well-paid educators are the key. A realistic and comprehensive estimate of what it would cost to achieve a skilled and stable workforce requires a key set of assumptions about qualifications, compensation, and ratios of children to teachers. To that end, we've modeled a system based on the following principles.

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### Principles for an effective ECE system

- Young children—regardless of age or setting—need well-prepared teachers.

- To attract and retain highly skilled teachers, California's ECE system must offer good wages, benefits, and working conditions.
- To provide high-quality care and education, reasonable limits should be placed on the number of children per teacher and sufficient staffing should be maintained to ensure adequate coverage at all times.
- Teachers must be allotted adequate time during which they do not have responsibility for children, so that they can take care of other professional responsibilities (e.g., plan activities and communicate with parents) as well as obtain further professional development.
- Program administrators and other key personnel must also have fair pay and healthy working conditions.
- To meet the increased demand for services anticipated once a stronger system is in place, the pipeline of highly qualified and committed teachers must be increased.

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## Estimating the costs

We estimate the costs of a fully phased-in overhaul of California's ECE system based on the above principles. In order to estimate the total costs, we answer a series of questions: How many children are expected to participate in the ECE system? How many of these children will be enrolled in home-based versus center-based facilities? How much should early educators be paid? To answer these questions, our ECE cost model incorporates data from a variety of sources and uses multiple parameters in order to provide a reasonable range of total costs.

### **How many children are expected to participate in the early care and education system?**

We begin our analysis by estimating the number of children in California. Using five years of data (2013–2017) from the American Community Survey, we estimate the number of children in California at each age (below age 1, age 1, age 2, etc.) for all

children under five years old. It is essential to estimate the number of children at each age (not just the total number of children under five) because of variations in the ages at which parents elect to enroll their children as well as different recommended teacher-child ratios for different ages of children.

The number of children who will require care depends on how many families decide to participate in the ECE system. Our lower-range estimate of the number of children requiring care is the current share of children under age five who are in either home-based or center-based care in California, based on our analysis of National Survey of Early Care and Education (NSECE) 2012 data. Our mid-range estimate is based on the labor force participation of parents who have children under the age of five, calculated using data from the American Community Survey (Ruggles et al. 2019). If all parents in a family work (one, if a single-parent family; two, if a two-parent family), then we assume that all young children in that family will enroll in the ECE system. To obtain our high-range estimate for the number of children age two and under participating in the program, we look at participation rates among OECD countries that have more comprehensive ECE systems already in place. We find that Denmark has the highest rate of participation for that age group, so we use Denmark's participation rate to calculate our high-range estimate for California.

For children ages three and four, we use the inverse of the overall homeschooling rate in the United States (for children ages 5–17),<sup>2</sup> which also happens to coincide with the OECD's findings for Denmark for this age group (OECD 2018; NCES 2017). Using these parameters, we estimate that the number of young children in the reformed ECE system in California would be somewhere between 992,000 and 2,018,000.

## **How many children will be enrolled in home-based versus center-based facilities?**

In our analysis, families choose between two major forms of early care and education: center-based or regulated home-based. Because the ratio requirements and facilities are quite different in

the two settings, it is important to estimate the number of children enrolled in each type of ECE facility in order to obtain meaningful cost estimates. Younger children are typically more likely to be enrolled in home-based care, while those closer to school age are more likely to be enrolled in center-based care. We draw on state-level data from NSECE and estimates provided in *Cradle to Kindergarten* (Chaudry et al. 2017), as well as other assumptions about take-up rates, to determine the overall shares of children, ages zero to five, who are in center-based and home-based care in California. These ratios are then applied to the total number of children enrolled to determine the total number of children in each setting.

## How many staff members will be needed to serve the early care and education system?

Given the number and distribution of children in each type of care, we determine the number of teachers and administrators needed using the recommended ratio requirements—that is, the maximum number of children per teacher in a home-based or center-based ECE setting, which differs by the age of the children. In the first step of this determination, we estimate the number of teachers needed for each group of children at any given time in each setting. Then, we determine how many full-time-equivalent (FTE) teachers are required given the hours a program is typically open during the week; how much noncontact time is required for lead versus assistant teachers or home-based providers; how many days are available for professional development; and how many days of paid time off (including holidays, vacation, and sick time) are allotted to each teacher. Using these statistics, we can estimate the total number of FTE teachers needed; we divide this total evenly into those with bachelor's degrees and those with associate degrees, so that at any given time each class has a lead teacher and an assistant teacher. Following these parameters, we calculate that the total number of teachers required in California's reformed ECE system ranges from 323,000 to 826,000.

## How much should early educators and other staff be paid?

Pay for staff in the ECE system should mirror that of staff in the primary and secondary school system in California. In our model, pay for early educators with a bachelor's degree is determined by salaries of elementary and middle school teachers in California, as estimated using Current Population Survey Outgoing Rotation Group weekly and hourly earnings data (EPI 2019a). The teaching assistant salary is determined by taking the ratio of the average pay for those with some college or an associate degree to the average pay for those with a college degree and applying that ratio to the salary for teachers with bachelor's degrees (EPI 2019b). The administrator salary is determined by averaging the salaries of educational administrators for preschools and for elementary and secondary schools, both of which are available in the Occupational Employment Statistics (OES) data (BLS-OES 2019). The salary for administrative assistants is based on the average salary for the category "Office and administrative support workers, all other" in the OES data.<sup>3</sup> Full-time wages for each staff position in our budget are provided in **Table 1**. In addition to paid time off, discussed above, benefits—such as health insurance and retirement contributions—are assumed to cost an additional 25 percent of annual wages for all positions.

TABLE 1

## ECE teacher and administrative salaries under a values-based budget for California child care

Staff position	How salary is determined	FTE salary
<b>Lead teacher</b>	Salary is based on earnings of California workers in the CPS* category “Elementary and middle school teachers.”	\$77,214
<b>Assistant teacher</b>	Salary is set at 60 percent of the lead teacher’s salary.	\$46,329
<b>Administrator</b>	Salary is the average of (current) mean salaries for California workers in the OES** categories “Education administrators, preschool and childcare center/program” and “Education administrators, elementary and secondary school.”	\$90,575
<b>Administrative assistant</b>	Salary is equivalent to the average salary for California workers in the OES** category “Office and administrative support workers, all other.”	\$37,940

\* Current Population Survey from the U.S. Census Bureau

\*\* Occupational Employment Statistics from the Bureau of Labor Statistics

**Notes:** FTE is the full-time-equivalent salary for a full-time (40 hours/week), full-year worker. Lead teachers are assumed to have a bachelor’s degree; assistant teachers are assumed to have an associate degree. Lead teacher salary is estimated by first calculating the ratio of median weekly teacher pay to median early educator weekly pay and then applying that ratio to the median hourly wage of early educators in the CPS-ORG. We set the assistant teacher salary at 60 percent of the lead teacher salary based on data from EPI’s data library (EPI 2019b)

## Nonpersonnel costs

The largest nonpersonnel cost is rent. For center-based care, we estimate rental costs using square-footage recommendations (AAP, APHA, and NRC 2019) and the median per-square-foot cost of real estate in California (LoopNet 2017). We estimate home-based care rent assuming 40 percent of median gross rent in California for a three-bedroom home (U.S. Census Bureau 2018). Given the variations both in the square-footage recommendations and in the estimates of the number of children served in each type of setting, our estimates reflect a range of costs.

Also included in this calculation are expenses for food, kitchen supplies, educational equipment, utilities, building maintenance, and insurance, among other things. These nonrent, nonpersonnel costs are adapted from Augenblick, Palaich and Associates 2017 for both center- and home-based settings.

## **Total cost of a values-based budget for early care and education**

We find that the annual cost of a fully phased-in high-quality and comprehensive ECE system for California ranges from \$29.7 to \$75.4 billion, or \$30,000 to \$37,000 per child. Because we anticipate increased demand once the program is implemented, we also consider the one-time cost of an investment to increase the size of the workforce (i.e., to provide education for a large number of new teachers); we estimate this one-time cost to range from \$3.0 to \$9.5 billion.

## **Benefits to California of a values-based budget for ECE**

A broad array of stakeholders in California now recognize that their hopes for high-quality early care and education cannot be realized in a system that relies so heavily on families and educators to shoulder its costs. Thus, estimating the costs for a reformed vision of what ECE should and can look like is important for establishing short- and long-term policy and resource goals. Because personnel costs are the primary driver of service costs, assumptions about staff (staffing levels, qualifications, compensation, and professional supports) included in estimates have the very real potential to be drivers of policies and resource allocation for decades to come. Policymakers and other stakeholders have an opportunity to disrupt the status quo and assert that the work of teaching young children, performed mostly by women of color, is a valuable and respected occupation in California.

The estimates developed in this model move past our current entrenched policies that are based on decades-old beliefs about

what it means to care for and teach young children. Our estimates are instead grounded in a twenty-first century knowledge of what is required of early educators, the conditions necessary for effective teaching, and the levels of compensation ECE teachers require and deserve. Furthermore, our estimates seek to eliminate disparities in pay among educators based on the age of the child, the setting, or the funding source. Eliminating these disparities is essential to creating the conditions for all children to have equitable access to teachers who are well prepared and well supported. It is also a matter of justice to early educators themselves.

*Policymakers and other stakeholders have an opportunity to disrupt the status quo and assert that the work of teaching young children, performed mostly by women of color, is a valuable and respected occupation in California.*

As with any challenge to conventional thinking that calls for changing business as usual, a first glance at the estimate (of \$30,000 to \$37,000 per child, with a total system cost of \$29.7 to \$75.4 billion) may induce sticker shock, especially in light of current K-12 spending (which also calls out for greater investment).<sup>4</sup> To be clear, our estimate is an estimate of the *total* cost required, not the net new cost. (Articulating the gap between current resources and what is needed, however, will be a necessary component for advancing reforms and increased investments.)

Although states have historically spent less per child for children before they enter their school years than for children in K-12, services for younger children *should* be more expensive because they require more teachers for fewer children and because these services are typically required by families for longer hours and for more days of the year. Furthermore, schools serving older children benefit from economies of scale that are not available to early childhood settings, given that ECE programs are almost

universally smaller (in terms of the number of children they serve at each site) than even the smallest K–12 school. This difference of scale has an impact on costs associated with space, utilities, purchasing, employee benefits, and the like.

California stands to benefit in multiple ways by making a serious investment in early care and education in line with the key values articulated in this model. Such an investment will ensure California has a skilled and stable ECE workforce that can deliver high-quality services and meet growing demand. Instituting a plan in line with our model would also remove barriers to work and increase employment and earnings among parents, particularly mothers (Bivens et al. 2016). Employers would benefit from reduced absenteeism and turnover when more stable child care is in place. Children entering older grades with a solid early childhood foundation will be more likely to be successful in school. Further, adequate levels of funding to support education and professional development for early educators can help address wage disparities within the occupation and relative to teachers of older children. Finally, investing in the true costs of quality early care and education services would create opportunities for those young people who would gladly pursue a career in teaching our youngest children—if it offered a pathway to the middle class rather than to poverty.

## Acknowledgments

The authors wish to acknowledge the generous support of the Joyce Foundation, the David and Lucile Packard Foundation, the Heising-Simons Foundation, and the W.K. Kellogg Foundation.

## Endnotes

1. According to the OECD, on average, countries spend about 0.7 percent of their gross domestic product (GDP) on early care and education services. Countries that spend below the average include the U.S., Estonia, Japan, Portugal, and Turkey—each of which spend less than 0.5 percent of their GDP. At the high end, France, New Zealand, and the Nordic countries spend 1 percent or more of GDP on early care and education services (OECD 2016).

2. We assume that families who homeschool their school-age children are unlikely to enroll their younger children in full-time ECE programs. Therefore, we believe that applying the inverse of the overall homeschooling rate to the number of three- and four-year-olds in California is a meaningful way to develop a high-range estimate for the number of children in this age group participating in ECE programs. The fact that Denmark's participation rate for this age group mirrors the inverse of the homeschooling rate in the U.S. suggests that this is a reasonable assumption.
3. Note that this category is not limited to office and administrative support workers who are employed in schools.
4. In a series of reports, García and Weiss examine the factors contributing to teacher shortages in the K-12 system. According to these authors, we need to "tackle the pay and other factors that are prompting teachers to quit and dissuading people from entering the teaching profession" and "we must provide extra supports and funding to high-poverty schools and their teachers" (García and Weiss 2019).

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