

ESTIMATING THE COST OF RAISING CHILD CARE WORKERS' WAGES FOR STATE SUBSIDY PROGRAMS: A METHODOLOGY APPLIED TO CALIFORNIA'S NEW STATE MINIMUM WAGE LAW

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INTRODUCTION AND SUMMARY

In April 2016, California passed legislation to increase the state minimum wage annually until it reaches \$15 an hour in 2023 for all businesses.¹ As a result, child care centers and licensed in-home providers will be required to increase the wages of their employees who currently earn less than the new minimum wage. Because a large proportion of workers in the child care industry is low-wage, this could have a significant impact on providers. Providers with private clients may respond by raising their prices to cover the cost of the wage increase. However, the amount providers receive for caring for children covered by state child care subsidy programs is determined by state and county reimbursement rates. Without the ability to change the amount charged for caring for subsidized children, child care centers or licensed in-home facilities may not be able to cover the cost of raising workers' wages to the new minimum wage.

In this memo, we describe a methodology we have developed for estimating the additional child care subsidy funding needed to cover the cost of a state minimum wage increase for programs administered by the California Department of Education (CDE) and the Department of Social Services through the CalWORKs 1 (Welfare to Work) program. The challenge is that standard government datasets are not able to provide accurate estimates of all of the components needed for this estimation. Therefore, the logic of our method is to (a) use administrative data to estimate the number of child care workers in California who care for subsidized children, and (b) use worker survey data to estimate the wage increases that child care workers will receive as a result of the state minimum wage increase. We then combine these estimates to calculate the total subsidy share of the cost of the mandated wage increases. Each of these steps is described in the sections that follow. The below table provides a summary of our estimates.

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SUMMARY TABLE: ESTIMATED COST TO RAISE LICENSED CHILD CARE WORKER WAGES TO NEW STATE MINIMUM WAGE FOR STATE SUBSIDY PROGRAMS

	Child care center workers	Licensed in-home providers	Licensed in-home provider assistants	TOTAL
Number of workers caring for children with subsidies in 2023	27,400	18,800	9,200	55,400
Number of these workers getting an increase in 2023	19,800	14,500	6,600	40,900
Average annual earnings increase per worker by 2023	\$7,700	\$14,500	\$7,700	\$10,100
Total cost of state minimum wage raises for state subsidy program (in millions, 2015 dollars)				
\$10 in 2017	\$45	\$84	\$15	\$144
\$10.50 in 2018	\$54	\$95	\$18	\$167
\$11 in 2019	\$63	\$107	\$21	\$191
\$12 in 2020	\$83	\$130	\$28	\$241
\$13 in 2021	\$107	\$155	\$36	\$298
\$14 in 2022	\$134	\$182	\$45	\$361
\$15 in 2023	\$164	\$210	\$55	\$429
Cumulative 2017-2023	\$648	\$964	\$218	\$1,830

Note: In some cases, total may not equal the sum of the columns due to rounding.

LIMITATIONS OF THE METHODOLOGY

Given that available data on child care workers is limited and incomplete, we believe that the methodology presented in this report is the best option for estimating the subsidy share of the cost of increasing child care workers’ wages at the state level. However, our method has a number of limitations.

First, our estimates only include the cost of bringing child care workers who care for subsidized children in licensed settings up to the new minimum wage floor, and do not include any additional wage increases that might be needed to ensure that there is a sufficient premium to reflect variation in qualifications and educational attainment. Second, our estimates do not include the cost of raising wages in unlicensed settings. We estimate that more than 42,000 license-exempt providers care for 48,000 state-subsidized children in California; these providers are paid as little as \$3 per hour per child, but it is not possible to reliably identify this workforce in the available datasets. Third, our methodology does not account for the local minimum wage ordinances that have recently been enacted in California cities and counties, which in some cases will rise at a faster pace than the new state minimum wage.

Finally, we do not address the potential impact of the new minimum wage law on the price of child care in the private market. The number of available child care subsidies in California is much smaller than the number of families who qualify for them, leaving many families without affordable child care. Our analysis does not address the potential impact that the state minimum wage increases may have on these families, and the implementation challenges posed to providers who care for children both with and without subsidies.²

ESTIMATING THE NUMBER OF CHILD CARE WORKERS WHO CARE FOR CHILDREN WITH SUBSIDIES IN LICENSED SETTINGS

We develop estimates for three different types of child care workers who provide care for children with subsidies: (1) child care center workers, (2) licensed in-home providers, and (3) the assistants of licensed in-home providers.³ Separate estimates allow policy makers to more easily determine by how much to increase reimbursement rates, which are different for child care centers and licensed in-home providers. For all three groups of child care workers, we use administrative data to estimate their numbers. While we use American Community Survey (ACS) data to estimate wages for child care workers (as described in the following section), our assessment is that the ACS does not provide reliable count estimates. The industry and occupation categories for child care workers are too broad, and it is difficult to parse out which child care workers are licensed providers, unlicensed providers, or child care center workers.

TABLE 1: ESTIMATES OF THE NUMBER OF CHILD CARE WORKERS IN CALIFORNIA CARING FOR CHILDREN WHO RECEIVE CHILD CARE SUBSIDIES, 2015

	Preferred estimate based on California Department of Education and Department of Social Services Data	Estimates based on alternative data	
		Occupational Employment Statistics	California Child Care Resources and Referral Network
Child care center workers	25,837	24,891	NA
Licensed in-home providers	17,698	NA	15,687
Licensed in-home provider assistants	8,787	NA	7,788

Note: See text for explanation of estimation methodology.

CHILD CARE CENTER WORKERS

We present two different methods to estimate the number of child care center workers who care for children with state subsidies, as shown in Table 1 above. Our preferred estimate is a sum of two separate counts. The first comes from the California Department of Education (CDE) and is based on the number of children receiving subsidies through CDE-administered programs (not including CalWORKS 1) and the minimum ratio of staff to children required under state licensing regulations, which varies by age group and funding stream. Specifically, the CDE used state administrative data to identify the number of children receiving subsidies in each age group in child care centers and then multiplied that number by the minimum staffing ratio for the age group.⁴

We then estimate separately the number of workers caring for children who receive child care subsidies through CalWORKS 1, because these workers are not included in the CDE estimate. Specifically, we calculate the overall ratio of workers to children from the CDE estimates described above. We then apply this composite staffing ratio to a count of children receiving child care with CalWORKS 1 subsidies from the California Department of Social Services.⁵ Combining these two counts, we estimate that there were 25,837 child care center workers caring for children with state subsidies in 2015.

While we believe the CDE estimates to be the most accurate available, this type of administrative data may not be easily accessible in all states. In the absence of this data, we believe the second best option for estimating the number of child care center workers is to use Occupational Employment Statistics (OES) data. OES data comes from a survey of establishments that pay unemployment insurance taxes and provides estimates of the number of payroll employees in particular industries and occupations. The occupations and industries that we used to identify child care center workers are listed below in Table 2.⁶ Summing the number of workers in each of these categories gives us an estimate of the total number of child care center workers in the state (85,240). We then apply an estimate of the percentage of children in centers who receive subsidies (29 percent) to arrive at our estimate of the number of workers who care for them (24,891).⁷

TABLE 2: OCCUPATION AND INDUSTRY COMBINATIONS USED TO IDENTIFY CHILD CARE CENTER WORKERS IN THE OES AND ACS

Occupation	Industry
Child Care Workers (4,600)	Child day care services (8,470)
	Elementary and secondary schools (7,860)
	Religious organizations (9,160)
	Colleges and universities (7,870)
Preschool and Kindergarten Teachers (2,300)	Child day care services (8,470)
Teacher Assistants (2,540)	Child day care services (8,470)

LICENSED IN-HOME PROVIDERS

We also generated two different estimates of the number of licensed in-home providers who care for children with subsidies. Our source for the preferred estimate for licensed in-home providers is the same as for the preferred estimate for child care center workers: a sum of CDE’s count of the number of licensed in-home providers who care for children receiving CDE administered subsidies, which excludes CalWORKS 1, and our estimate of the number of licensed in-home providers caring for children with CalWORKS 1 subsidies. But again, this type of administrative data may not be easily accessible in all states. In the absence of this data, the second best option is to use a count of all licensed in-home providers in the state from the California Child Care Resource & Referral Network (30,914 in 2015) and then to apply an estimate of the percentage that care for children with subsidies (50 percent).⁸ Neither of these estimates includes assistants hired by licensed providers.

LICENSED IN-HOME PROVIDER ASSISTANTS

Some licensed in-home providers hire assistants in order to meet the minimum staffing levels required under state licensing regulations. Using data on the proportion of licensed in-home providers who employ assistants, we construct a ratio of the number of assistants to the number of licensed in-home providers (0.49).⁹ We then apply that ratio to our two estimates of the number of licensed in-home providers who provide care for children with subsidies.

We should note that of the three groups of workers, assistants are the most difficult to identify. We suspect that some may be captured in our OES estimates of child care center workers, as they are payroll employees, but this is likely a very small number.

ESTIMATING CHILD CARE WORKERS' WAGES

To estimate the wages of child care workers, we use data from the IPUMS American Community Survey (ACS), which is an annual representative sample of households in the U.S.¹⁰ Other available datasets either do not have a large enough sample size at the state level (such as the Current Population Survey) or do not include variables, such as self-employment status, that allow us to distinguish between child care center workers and licensed in-home providers.

We combine annual ACS datasets from 2012, 2013, and 2014 in order to yield a sufficient sample size. We restrict our sample to workers who live in California, are 18 to 64 years old, are not unpaid family workers, had earnings at some point in the previous 12 months, worked more than 13 weeks in the previous 12 months, and usually worked more than three hours per week.

The ACS does not ask survey participants for their hourly wage. Instead, the ACS collects data on annual wage and salary income, usual hours worked per week, and weeks worked in the past year. To estimate each individual's hourly wage, we divide her annual earnings by usual hours worked per week times weeks worked in the past year. Because the "weeks worked" variable is reported in intervals, we use the mid-point of each interval in this calculation. Reported wages tend to be clustered around whole numbers, so we smooth the wage distribution by randomly adding or subtracting between 0 and 25 cents from each individual's hourly wage. We also trim extreme outliers. Wages are adjusted for inflation to 2015 dollars using the California CPI.¹¹ As with our estimate of the number of child care workers, we estimate wages separately for the three different types of child care workers.

CHILD CARE CENTER WORKERS AND ASSISTANTS OF LICENSED IN-HOME PROVIDERS

We use the above method to estimate the hourly wages of child care center workers and assistants of licensed in-home providers because they are both payroll employees and it is not possible to distinguish between the two groups in our ACS dataset. We restrict our sample to workers who are payroll employees (not self-employed) and fall into one of the combinations of occupation and industry shown in Table 2 above.

LICENSED IN-HOME PROVIDERS

To estimate the wages of licensed in-home providers, we restrict our sample to workers who are self-employed, have their occupation listed as "Child care Workers," and have their industry listed as "Child day care services." Although we believe that these workers are predominantly licensed in-home child care providers, this sample may also include a smaller number of unlicensed in-home providers.

Since these workers are self-employed, they may report their income as business income. To calculate the hourly wage for these workers, we use reported wage and salary income or business income, whichever is greater. We have some reservations about our hourly wage estimates for licensed in-home providers who report most of their income in the form of business income. This income is reported pre-tax and net of business expenses, and we have no way of verifying how workers are making these calculations or if they accurately represent their actual earnings. It is also likely that we are not accurately estimating their hours worked. For example, many in-home providers work from 7 a.m. until 6 p.m. and, at times, during evenings and weekends. Additional hours spent purchasing supplies, cleaning, handling maintenance, preparing curriculum, and dealing with billing and paperwork occur on top of the hours of care, but are likely not consistently reported as hours worked in worker surveys.

ESTIMATING THE COST OF THE STATE MINIMUM WAGE INCREASE FOR STATE SUBSIDY PROGRAMS

Finally, we estimate the subsidy share of the cost of increasing child care worker wages according to the new California state minimum wage schedule, which raises the minimum wage from \$10 an hour in 2016 to \$15 an hour by 2023 (the exact schedule varies by business size).¹² Our cost estimates are relative to what child care workers' earnings would have been without the new law.¹³

To calculate the cost of the wage increase, we first identify child care workers in our ACS dataset whose calculated hourly wage is less than the new minimum wage; we then calculate the difference between their estimated hourly wage in 2015 and the new minimum wage. We multiply this difference by hours worked per week and the annual number of weeks worked to estimate the average annual earnings increase. Finally, we multiply the average annual earnings increase by our estimate of the number of child care workers caring for children with subsidies. The new minimum wage law in California includes a series of minimum wage increases over multiple years, so we repeat this calculation for each separate minimum wage increase.

Our cost estimates are shown in Table 3, Table 4, and Table 5. Detailed tables are provided in the Appendix. Although there are more center-based workers than licensed in-home providers, the subsidy cost of increasing the licensed in-home workers' wages is higher than for center-based workers. One reason is that a higher proportion of licensed providers care for children with subsidies (50 percent compared to 29 percent for center workers). In addition, the average cost per worker is greater for licensed in-home providers because their median hourly wage is lower (\$8.28 compared to \$11.65 for center workers, in 2015) and because on average they work more hours per week (37 hours compared to 29 for center workers).

TABLE 3: STATE SUBSIDY COST ESTIMATES FOR CHILD CARE CENTER WORKERS

	Preferred Estimate: California Department of Education	Alternative Estimate: Occupational Employment Statistics
Number of workers caring for children with subsidies in 2023*	27,400	26,300
Number of these workers getting an increase in 2023*	19,800	18,900
Average annual earnings increase per worker by 2023**	\$7,700	\$7,700
Cost of raises (2015 dollars; includes 7.65% payroll tax)***		
\$10 in 2017	\$45,000,000	\$43,000,000
\$10.50 in 2018	\$54,000,000	\$51,000,000
\$11 in 2019	\$63,000,000	\$60,000,000
\$12 in 2020	\$83,000,000	\$79,000,000
\$13 in 2021	\$107,000,000	\$102,000,000
\$14 in 2022	\$134,000,000	\$128,000,000
\$15 in 2023	\$164,000,000	\$157,000,000
Cumulative 2017-2023	\$648,000,000	\$620,000,000

* Original 2014 counts have been adjusted using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department.

** The average annual earnings increase is the difference between actual average annual earnings in 2014 (inflated to 2015 dollars) and what workers' annual earnings would be if they had earned \$15 an hour.

*** In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

TABLE 4: STATE SUBSIDY COST ESTIMATES FOR LICENSED IN-HOME PROVIDERS

	Preferred Estimate: California Department of Education	Alternative Estimate: California Child Care Resource & Referral Network
Number of workers caring for children with subsidies in 2023*	18,800	16,300
Number of these workers getting an increase in 2023*	14,500	12,500
Average annual earnings increase per worker by 2023**	\$14,500	\$14,500
Cost of raises (2015 dollars)***		
\$10 in 2017	\$84,000,000	\$73,000,000
\$10.50 in 2018	\$95,000,000	\$83,000,000
\$11 in 2019	\$107,000,000	\$93,000,000
\$12 in 2020	\$130,000,000	\$113,000,000
\$13 in 2021	\$155,000,000	\$135,000,000
\$14 in 2022	\$182,000,000	\$158,000,000
\$15 in 2023	\$210,000,000	\$182,000,000
Cumulative 2017-2023	\$964,000,000	\$836,000,000

* Original 2014 counts have been adjusted using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department.

** The average annual earnings increase is the difference between actual average annual earnings in 2014 (inflated to 2015 dollars) and what workers' annual earnings would be if they had earned \$15 an hour.

*** In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

TABLE 5: STATE SUBSIDY COST ESTIMATES FOR ASSISTANTS OF LICENSED IN-HOME PROVIDERS

	Preferred Estimate: California Department of Education	Alternative Estimate: California Child Care Resource & Referral Network
Number of workers caring for children with subsidies in 2023*	9,200	8,000
Number of these workers getting an increase in 2023*	6,600	5,800
Average annual earnings increase per worker by 2023**	\$7,700	\$7,700
Cost of raises (2015 dollars; includes 7.65% payroll tax)***		
\$10 in 2017	\$15,000,000	\$13,000,000
\$10.50 in 2018	\$18,000,000	\$16,000,000
\$11 in 2019	\$21,000,000	\$18,000,000
\$12 in 2020	\$28,000,000	\$24,000,000
\$13 in 2021	\$36,000,000	\$31,000,000
\$14 in 2022	\$45,000,000	\$39,000,000
\$15 in 2023	\$55,000,000	\$48,000,000
Cumulative 2017-2023	\$218,000,000	\$189,000,000

* Original 2014 counts have been adjusted using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department.

** The average annual earnings increase is the difference between actual average annual earnings in 2014 (inflated to 2015 dollars) and what workers' annual earnings would be if they had earned \$15 an hour.

*** In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

APPENDIX

TABLE A1: DETAILED STATE SUBSIDY COST ESTIMATES FOR CHILD CARE CENTER WORKERS

All cost estimates are in 2015 dollars. Total cost includes 7.65 percent payroll tax. Original 2014 worker counts have been adjusted to 2015 using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department. In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

	Preferred Estimate: California Department of Education				Alternative Estimate: Occupational Employment Statistics			
	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost
\$10 in 2017	26,400	10,300	\$4,100	\$45,000,000	25,200	9,900	\$4,100	\$43,000,000
\$10.50 in 2018	26,600	11,600	\$4,300	\$54,000,000	25,400	11,100	\$4,300	\$51,000,000
\$11 in 2019	26,700	12,400	\$4,700	\$63,000,000	25,600	11,900	\$4,700	\$60,000,000
\$12 in 2020	26,900	14,400	\$5,300	\$83,000,000	25,700	13,800	\$5,300	\$79,000,000
\$13 in 2021	27,100	16,700	\$5,900	\$107,000,000	25,900	16,000	\$5,900	\$102,000,000
\$14 in 2022	27,300	18,300	\$6,800	\$134,000,000	26,100	17,500	\$6,800	\$128,000,000
\$15 in 2023	27,400	19,800	\$7,700	\$164,000,000	26,300	18,900	\$7,700	\$157,000,000
Cumulative 2017-2023				\$648,000,000				\$620,000,000

TABLE A2: DETAILED STATE SUBSIDY COST ESTIMATES FOR LICENSED HOME-BASED PROVIDERS

All cost estimates are in 2015 dollars. Original 2014 worker counts have been adjusted to 2015 using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department. In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

	Preferred Estimate: California Department of Education				Alternative Estimate: California Child Care Resource & Referral Network			
	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost
\$10 in 2017	18,100	10,500	\$8,000	\$84,000,000	15,700	9,100	\$8,000	\$73,000,000
\$10.50 in 2018	18,200	11,200	\$8,500	\$95,000,000	15,800	9,700	\$8,500	\$83,000,000
\$11 in 2019	18,300	11,600	\$9,200	\$107,000,000	15,900	10,100	\$9,200	\$93,000,000
\$12 in 2020	18,400	12,400	\$10,500	\$130,000,000	16,000	10,800	\$10,500	\$113,000,000
\$13 in 2021	18,600	13,200	\$11,800	\$155,000,000	16,100	11,400	\$11,800	\$135,000,000
\$14 in 2022	18,700	13,800	\$13,200	\$182,000,000	16,200	11,900	\$13,200	\$158,000,000
\$15 in 2023	18,800	14,500	\$14,500	\$210,000,000	16,300	12,500	\$14,500	\$182,000,000
Cumulative 2017-2023				\$964,000,000				\$836,000,000

TABLE A3: DETAILED STATE SUBSIDY COST ESTIMATES FOR ASSISTANTS OF LICENSED IN-HOME PROVIDERS

All cost estimates are in 2015 dollars. Total cost includes 7.65 percent payroll tax. 2014 worker counts have been adjusted to 2015 using 2012-2022 annual employment growth by occupation estimates from the California Employment Development Department. In some cases, total cost may not equal the reported number of workers getting an increase multiplied by the reported average increase due to rounding.

	Preferred Estimate: California Department of Education				Alternative Estimate: California Child Care Resource & Referral Network			
	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost	No. of workers caring for subsidized children	No. of these workers getting an increase	Average annual increase per worker below threshold	Total cost
\$10 in 2017	8,900	3,500	\$4,100	\$15,000,000	7,700	3,000	\$4,100	\$13,000,000
\$10.50 in 2018	8,900	3,900	\$4,300	\$18,000,000	7,700	3,400	\$4,300	\$16,000,000
\$11 in 2019	9,000	4,200	\$4,700	\$21,000,000	7,800	3,600	\$4,700	\$18,000,000
\$12 in 2020	9,000	4,800	\$5,300	\$28,000,000	7,800	4,200	\$5,300	\$24,000,000
\$13 in 2021	9,100	5,600	\$5,900	\$36,000,000	7,900	4,900	\$5,900	\$31,000,000
\$14 in 2022	9,200	6,100	\$6,800	\$45,000,000	7,900	5,300	\$6,800	\$39,000,000
\$15 in 2023	9,200	6,600	\$7,700	\$55,000,000	8,000	5,800	\$7,700	\$48,000,000
Cumulative 2017-2023				\$218,000,000				\$189,000,000

ENDNOTES

¹ The state schedule reaches \$15 in 2022 for businesses with more than 25 employees and in 2023 for businesses with 25 or fewer employees.

² See Center for the Study of Child Care Employment. 2016. “California’s Rising Minimum Wage: Opportunities and Challenges for Early Care and Education.” University of California, Berkeley. http://www.irle.berkeley.edu/cscce/wp-content/uploads/2006/01/statewide_providers.pdf

³ We do not include estimates for subsidized license-exempt providers because we are not able to identify these specific workers in the American Community Survey (ACS) dataset and therefore cannot estimate their wages. However, the low reimbursement rates for these workers typically result in hourly earnings that are less than the minimum wage. Generally, license-exempt providers’ rates are set as a percentage of licensed family child care providers (as of January 2017 this percentage will be 65 percent). We estimate there are over 42,000 license-exempt providers who care for 48,000 state-subsidized children.

⁴ Because the minimum staffing ratio varies for contract and voucher subsidies, CDE uses a composite ratio that can be applied across funding streams.

⁵ California Department of Social Services, Welfare to Work Division. “CalWORKS Annual Summary.” January 2016. http://www.cdss.ca.gov/cdssweb/entres/pdf/CW_AnnualSummary2016.pdf

⁶ Preschool teachers and kindergarten teachers are included in the same occupation category. We attempt to include preschool teachers and exclude kindergarten teachers by only including individuals in the “Preschool and kindergarten teacher” occupation category who also work in the “Child day care services industry.”

⁷ The estimate of the percentage of children in centers who receive subsidies (29 percent) is calculated using data from a [report from the California Legislative Analyst's Office](#) and kidsdata.org.

⁸ The California Child Care Resource & Referral Network (CCRRN) estimate of the number of licensed in-home providers was accessed from kidsdata.org. The 50 percent estimate is based on a count from the California Department of Education of the number of licensed in-home providers caring for children with subsidies.

⁹ The ratio of assistants to providers comes from Table 3.9, page 26, of Center for the Study of Child Care Employment. 2016. “California’s Rising Minimum Wage: Opportunities and Challenges for Early Care and Education.” University of California, Berkeley. http://www.irle.berkeley.edu/cscce/wp-content/uploads/2006/01/statewide_providers.pdf

¹⁰ IPUMS-USA, University of Minnesota, www.ipums.org.

¹¹ <http://www.dof.ca.gov/Forecasting/Economics/Indicators/Inflation/documents/BBCYCPI.xls>

¹² The new state law passed in April 2016 will increase the minimum wage for businesses with 25 or fewer employees to \$10.50 in 2018, \$11.00 in 2019, \$12.00 in 2020, \$13.00 in 2021, \$14.00 in 2022, and \$15.00 in 2023.

¹³ In these scenarios, we assume that child care workers do not experience wage growth absent the minimum wage policy; historical data from the OES substantiates this assumption. For all estimates, we apply projected employment growth for child care workers (<http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html>). For cost estimates for center-based workers and assistants of licensed in-home providers, we include a payroll tax of 7.65 percent on top of the additional wages.