



Methodology for ‘Where Does Your Child Care Dollar Go?’

By Simon Workman

Summary

The interactive tool has several defaults built into its calculations to simplify the process of estimating the cost of child care and preschool. This Methodology details the default data assumptions, provides references for these data, and offers further guidance on the quality options that users can select in the tool as they build their classroom.

Base model

When users begin their scenario, the tool is populated with base data, which are customized for the selected state and age group. These data are largely drawn from state licensing regulations as well as from defaults in the Provider Cost of Quality Calculator—a tool developed for the U.S. Department of Health and Human Services’ Office of Child Care.¹

Program characteristics

- The base scenario assumes a child care center with four classrooms.² There is one infant class with children up to 18 months old; one toddler class with children between the ages of 18 months and 36 months old; and two preschool classes for 3- and 4-year-olds.
- State licensing regulations determine default ratios and group size. The tool assumes that each classroom has one lead teacher and one assistant teacher, with the maximum number of children in the classroom determined by the ratios.
- Table 1 details licensing ratios and maximum group sizes for each state.

TABLE 1
State licensing ratios and group size

State	Infant		Toddler		Preschool	
	Minimum teacher-child ratio	Maximum group size	Minimum teacher-child ratio	Maximum group size	Minimum teacher-child ratio	Maximum group size
Alabama	1-to-5	10	1-to-8	16	1-to-11	22
Alaska	1-to-5	10	1-to-6	12	1-to-10	20
Arizona	1-to-5	10	1-to-8	16	1-to-13	26
Arkansas	1-to-6	12	1-to-9	18	1-to-12	24
California	1-to-4	8	1-to-6	12	1-to-12	24
Colorado	1-to-5	10	1-to-7	14	1-to-10	20
Connecticut	1-to-4	8	1-to-4	8	1-to-10	20
Delaware	1-to-4	8	1-to-8	16	1-to-10	20
District of Columbia	1-to-4	8	1-to-4	8	1-to-8	16
Florida	1-to-4	8	1-to-11	22	1-to-15	30
Georgia	1-to-6	12	1-to-10	20	1-to-15	30
Hawaii	1-to-4	8	1-to-8	16	1-to-15	30
Idaho	1-to-6	12	1-to-8	16	1-to-12	24
Illinois	1-to-4	12	1-to-8	16	1-to-10	20
Indiana	1-to-4	8	1-to-7	14	1-to-10	20
Iowa	1-to-4	8	1-to-6	12	1-to-8	16
Kansas	1-to-3	9	1-to-7	14	1-to-12	24
Kentucky	1-to-5	10	1-to-10	20	1-to-12	24
Louisiana	1-to-6	12	1-to-12	24	1-to-14	28
Maine	1-to-4	8	1-to-5	10	1-to-10	20
Maryland	1-to-3	6	1-to-6	12	1-to-10	20
Massachusetts	1-to-3	7	1-to-10	20	1-to-10	20
Michigan	1-to-4	12	1-to-8	16	1-to-10	20
Minnesota	1-to-4	8	1-to-7	14	1-to-10	20
Mississippi	1-to-5	10	1-to-12	14	1-to-14	14
Missouri	1-to-4	8	1-to-8	16	1-to-10	20
Montana	1-to-4	8	1-to-8	16	1-to-8	16
Nebraska	1-to-4	12	1-to-6	12	1-to-10	20
Nevada	1-to-6	12	1-to-10	20	1-to-13	26
New Hampshire	1-to-4	12	1-to-6	18	1-to-12	24
New Jersey	1-to-4	12	1-to-10	20	1-to-12	20
New Mexico	1-to-6	12	1-to-10	20	1-to-12	24
New York	1-to-4	8	1-to-5	12	1-to-7	18
North Carolina	1-to-5	10	1-to-10	20	1-to-15	25
North Dakota	1-to-4	10	1-to-7	20	1-to-7	20

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State	Infant		Toddler		Preschool	
	Minimum teacher-child ratio	Maximum group size	Minimum teacher-child ratio	Maximum group size	Minimum teacher-child ratio	Maximum group size
Ohio	1-to-5	10	1-to-7	14	1-to-12	24
Oklahoma	1-to-4	8	1-to-8	16	1-to-12	24
Oregon	1-to-4	8	1-to-5	10	1-to-10	20
Pennsylvania	1-to-4	8	1-to-6	12	1-to-10	20
Rhode Island	1-to-4	8	1-to-6	12	1-to-9	18
South Carolina	1-to-5	10	1-to-9	18	1-to-13	26
South Dakota	1-to-5	20	1-to-5	20	1-to-10	20
Tennessee	1-to-4	8	1-to-7	14	1-to-9	18
Texas	1-to-4	10	1-to-11	22	1-to-15	30
Utah	1-to-4	8	1-to-7	14	1-to-12	24
Vermont	1-to-4	8	1-to-5	10	1-to-10	20
Virginia	1-to-4	8	1-to-10	20	1-to-10	20
Washington	1-to-4	8	1-to-7	14	1-to-10	20
West Virginia	1-to-4	8	1-to-8	16	1-to-10	20
Wisconsin	1-to-4	8	1-to-6	12	1-to-10	20
Wyoming	1-to-4	10	1-to-8	12	1-to-12	24
United States	1-to-4	10	1-to-8	15	1-to-11	22

Note: United States category is based on average across all 50 states.

Source: U.S. Department of Health and Human Services, "Data Explorer and State Profiles," available at <https://childcareta.acf.hhs.gov/data> (last accessed December 2017).

- For each classroom, the tool includes 20 percent additional staffing time, the equivalent of eight hours per week. This ensures that ratios are maintained for all hours during which the program is open, usually more than the typical 40-hour employee work week. This additional staffing is calculated using assistant teacher salary data.
- In addition to teaching staff, the program is assumed to have a full-time director, a full-time administrative assistant, and a part-time education coordinator or deputy director.

Compensation

- Default employee salaries are based on mean annual wage state data from the U.S. Bureau of Labor Statistics (BLS). The BLS job categories and their associated categories in the tool are listed in Table 2.

TABLE 2
Bureau of Labor Statistics job categories

Job title	BLS category name	BLS category ID
Program director	Education Administrators, Preschool and Childcare Center/Program	11-9031
Educational coordinator	Education Administrators, Preschool and Childcare Center/Program	11-9031
Administrative assistant	Office Clerks, General	43-9061
Lead teacher	Preschool Teachers, Except Special Education	25-2011
Assistant teacher	Childcare Workers	39-9011

Source: U.S. Bureau of Labor Statistics, "May 2016 National Occupational Employment and Wage Estimates United States," available at https://www.bls.gov/oes/2016/may/oes_nat.htm (last accessed December 2017).

- Minimum wage data are used to calculate the cost of substitutes who cover for teaching staff taking paid planning time and paid time off. In cases where the state minimum wage is lower than the federal minimum wage, the federal minimum is used.
- Table 3 summarizes the default salaries used in the tool.

TABLE 3
Default salaries

State	Lead teacher	Assistant teacher	Program director	Education coordinator	Administrative assistant	Minimum wage
Alabama	\$25,940	\$18,810	\$45,870	\$45,870	\$24,900	\$7.25
Alaska	\$38,370	\$26,720	\$65,510	\$65,510	\$47,130	\$9.84
Arizona	\$27,850	\$21,920	\$41,430	\$41,430	\$34,380	\$10.50
Arkansas	\$31,700	\$19,700	\$49,410	\$49,410	\$26,380	\$8.50
California	\$35,740	\$27,170	\$54,520	\$54,520	\$35,270	\$11.00
Colorado	\$30,170	\$26,660	\$50,190	\$50,190	\$38,570	\$10.20
Connecticut	\$36,570	\$25,340	\$60,120	\$60,120	\$37,870	\$10.10
Delaware	\$28,980	\$21,910	\$51,840	\$51,840	\$29,280	\$8.25
District of Columbia	\$37,480	\$29,450	\$63,290	\$63,290	\$41,770	\$12.50
Florida	\$27,480	\$21,610	\$62,270	\$62,270	\$29,630	\$8.25
Georgia	\$29,920	\$20,680	\$48,060	\$48,060	\$28,820	\$7.25
Hawaii	\$35,820	\$21,210	\$48,480	\$48,480	\$33,670	\$10.10
Idaho	\$23,200	\$19,480	\$38,630	\$38,630	\$29,890	\$7.25
Illinois	\$32,950	\$23,830	\$59,480	\$59,480	\$35,660	\$8.25
Indiana	\$26,900	\$20,580	\$41,820	\$41,820	\$31,120	\$7.25
Iowa	\$26,950	\$20,410	\$43,440	\$43,440	\$33,420	\$7.25
Kansas	\$28,550	\$19,890	\$42,430	\$42,430	\$29,280	\$7.25
Kentucky	\$36,550	\$20,180	\$46,820	\$46,820	\$29,830	\$7.25

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State	Lead teacher	Assistant teacher	Program director	Education coordinator	Administrative assistant	Minimum wage
Louisiana	\$36,790	\$19,270	\$42,360	\$42,360	\$25,280	\$7.25
Maine	\$33,190	\$22,970	\$47,830	\$47,830	\$31,410	\$10.00
Maryland	\$35,090	\$25,060	\$51,510	\$51,510	\$33,960	\$9.25
Massachusetts	\$35,900	\$27,610	\$59,020	\$59,020	\$37,940	\$11.00
Michigan	\$31,010	\$22,510	\$49,640	\$49,640	\$34,150	\$9.25
Minnesota	\$33,300	\$24,450	\$54,160	\$54,160	\$35,370	\$9.65
Mississippi	\$28,950	\$18,900	\$39,640	\$39,640	\$26,770	\$7.25
Missouri	\$27,500	\$21,860	\$50,220	\$50,220	\$30,530	\$7.85
Montana	\$27,500	\$20,760	\$37,900	\$37,900	\$30,630	\$8.30
Nebraska	\$41,970	\$22,140	\$63,930	\$63,930	\$28,480	\$9.00
Nevada	\$32,270	\$21,910	\$45,460	\$45,460	\$35,700	\$8.25
New Hampshire	\$30,000	\$22,200	\$44,110	\$44,110	\$37,210	\$7.25
New Jersey	\$40,720	\$25,040	\$64,610	\$64,610	\$34,890	\$8.60
New Mexico	\$31,500	\$20,660	\$46,490	\$46,490	\$25,900	\$7.50
New York	\$41,900	\$27,580	\$67,080	\$67,080	\$33,090	\$10.40
North Carolina	\$28,500	\$21,480	\$48,250	\$48,250	\$29,810	\$7.25
North Dakota	\$34,280	\$22,170	\$39,910	\$39,910	\$30,210	\$7.25
Ohio	\$27,110	\$21,970	\$42,420	\$42,420	\$31,300	\$8.30
Oklahoma	\$32,010	\$19,690	\$45,350	\$45,350	\$27,920	\$7.25
Oregon	\$30,230	\$24,460	\$42,310	\$42,310	\$34,470	\$10.25
Pennsylvania	\$28,060	\$21,320	\$45,860	\$45,860	\$32,710	\$7.25
Rhode Island	\$33,920	\$24,620	\$62,670	\$62,670	\$35,050	\$10.10
South Carolina	\$29,250	\$19,550	\$45,090	\$45,090	\$27,830	\$7.25
South Dakota	\$29,820	\$20,710	\$56,220	\$56,220	\$25,030	\$8.85
Tennessee	\$30,910	\$20,480	\$41,220	\$41,220	\$32,210	\$7.25
Texas	\$35,820	\$20,700	\$48,130	\$48,130	\$34,380	\$7.25
Utah	\$26,580	\$21,840	\$41,000	\$41,000	\$29,610	\$7.25
Vermont	\$33,900	\$26,650	\$46,470	\$46,470	\$31,700	\$10.50
Virginia	\$37,420	\$23,030	\$51,490	\$51,490	\$33,530	\$7.25
Washington	\$30,440	\$25,610	\$47,590	\$47,590	\$36,380	\$11.50
West Virginia	\$31,680	\$21,010	\$39,240	\$39,240	\$27,750	\$8.75
Wisconsin	\$26,360	\$21,480	\$45,090	\$45,090	\$33,520	\$7.25
Wyoming	\$30,610	\$23,630	\$50,920	\$50,920	\$34,080	\$7.25
United States	\$33,300	\$22,930	\$52,150	\$52,150	\$33,010	\$7.25

Source: U.S. Bureau of Labor Statistics, "May 2016 Occupational Employment and Wage Estimates," available at <https://www.bls.gov/oes/2016/may/oesrcst.htm> (last accessed December 2017); U.S. Department of Labor, "Wage and Hour Division (WHD): Consolidated Minimum Wage Table," available at <https://www.dol.gov/whd/minwage/mw-consolidated.htm> (last accessed January 2018).

- The model includes mandatory benefits equal to 7.2 percent of salary for the Federal Insurance Contributions Act, Social Security, unemployment, and workers' compensation. This figure is based on the service-providing industry standard, as detailed by the BLS.³
- By default, the tool includes additional benefits of \$500 per employee for employer contributions to health insurance.⁴ It also includes 10 paid holidays and five days of paid time off by default. The cost of a substitute, paid at minimum wage, is included in the calculations to cover these five days off for the teaching staff and for the program director.
- The cost of nonteaching personnel is allocated equally across all children in the program.⁵

Nonpersonnel program expenses

- In the tool, nonpersonnel expenses are primarily based on defaults in the Provider Cost of Quality Calculator, with some additions, as noted below. Table 4 identifies the nonpersonnel expenses and the default annual values for each expense that is included in the tool.
- Several expenses were adjusted in order to account for each state's cost of living. These adjustments are based on the U.S. Bureau of Economic Analysis' 2015 regional price parity data.⁶ Table 4 identifies the expenses adjusted for cost of living.
- The average cost per square foot determines occupancy costs. The program's total square footage is based on state licensing regulation requirements for minimum square footage of floor space per child, plus an additional 30 square feet per child in order to account for shared spaces, such as hallways, kitchens, and offices. Table 7 details state licensing regulations related to square footage.
- The tool includes an additional 15 percent of total expenses as a contribution to the program's operating reserve. This is intended to account for uncollected revenue—including tuition and parent copays—and enrollment inefficiency, which accounts for staffed enrollment versus actual enrollment. It also aims to provide the program with some profit, at a level in line with good financial management.
- Any office and administrative costs calculated on a per-site basis are allocated equally across all children in the program.

TABLE 4
Default nonpersonnel expenses

Nonpersonnel expenses	Annual expense	Cost of living adjustment?
Occupancy		
Rent	\$13.65 per square foot	✓
Utilities	\$2.19 per square foot	✓
Building insurance	\$1.34 per square foot	✓
Maintenance, repairs, and/or cleaning	\$2.85 per square foot	✓
Office and administration		
Office supplies and equipment	\$52 per child	
Insurance (liability, accident, etc.)	\$75 per child	✓
Postage	\$24 per child	
Advertising	\$25 per child	✓
Miscellaneous	\$15 per child	
Training and/or consultants	\$200 per staff member	
Telephone and/or internet	\$1440 per site	✓
Audit	\$3000 per site	✓
Fees and/or permits	\$150 per site	✓
Contribution to operating reserve (bad debt, enrollment efficiency, and/or profit)	15% of total expenses	
Classroom materials and food		
Food and food prep	\$1,000 per child	✓
Kitchen supplies	\$50 per child	✓
Education supplies and equipment	\$150 per child	
Child assessment	\$25 per child	

Source: Based on defaults provided by the Office of Child Care, "Provider Cost of Quality Calculator," available at www.ecequalitycalculator.com (last accessed December 2017).

Adjustments for quality

The interactive allows users to adjust certain defaults in the tool in order to model a higher-quality program. The following elements can be adjusted in the tool.

Employee salaries

Users can increase salaries for the early childhood workforce in two ways.

Kindergarten parity

Users can increase salaries so that early childhood lead teacher salaries align with kindergarten teacher salaries in the selected state—based on the BLS mean, category 25-2012—and assistant teacher salaries align with the BLS teacher assistant salaries, category 25-9041.⁷

Midway increase

To account for the large gap that currently exists in all states between early childhood teacher salaries and kindergarten teacher salaries, the tool gives users the option to increase lead teacher salaries so that they are midway between the current early childhood teacher salary and the kindergarten teacher salary. This increase varies by state, ranging from 7 percent to 41 percent, with an average increase of approximately 22 percent.

In both options, salaries for nonteaching staff at the model child care center increase by the same percentage as the lead teacher increase. For example, if the lead teacher's increase from current salary to kindergarten salary is equivalent to 30 percent, the director will also see a 30 percent increase in salary to align with the teachers' salary increases.

Table 5 details the percentage increases to the base salaries outlined in Table 3 for both the kindergarten parity option and the midway increase option.

TABLE 5
Percent increase to default salaries

State	Midway increase	Kindergarten parity	State	Midway increase	Kindergarten parity
Alabama	35%	70%	Montana	35%	70%
Alaska	45%	91%	Nebraska	15%	31%
Arizona	26%	52%	Nevada	32%	64%
Arkansas	22%	45%	New Hampshire	36%	72%
California	39%	78%	New Jersey	31%	62%
Colorado	32%	64%	New Mexico	43%	86%
Connecticut	50%	101%	New York	37%	73%
Delaware	48%	95%	North Carolina	24%	49%
District of Columbia	40%	80%	North Dakota	18%	36%
Florida	34%	69%	Ohio	51%	103%
Georgia	38%	76%	Oklahoma	13%	26%
Hawaii	12%	24%	Oregon	56%	111%
Idaho	56%	113%	Pennsylvania	46%	93%
Illinois	38%	77%	Rhode Island	35%	70%
Indiana	37%	74%	South Carolina	37%	75%
Iowa	43%	86%	South Dakota	19%	39%
Kansas	36%	73%	Tennessee	31%	62%
Kentucky	22%	44%	Texas	24%	47%
Louisiana	15%	31%	Utah	31%	61%
Maine	27%	53%	Vermont	34%	68%
Maryland	34%	68%	Virginia	36%	72%
Massachusetts	46%	92%	Washington	46%	92%
Michigan	45%	90%	West Virginia	25%	49%
Minnesota	36%	73%	Wisconsin	53%	105%
Mississippi	20%	40%	Wyoming	44%	88%
Missouri	44%	89%	United States	33%	67%

Source: Author's calculations based on data from the U.S. Bureau of Labor Statistics, "May 2016 State Occupational Employment and Wage Estimates," available at <https://www.bls.gov/oes/2016/may/oesrcst.htm> (last accessed December 2017).

Employee benefits

The tool allows users to increase benefits for the early childhood workforce in two ways.

Retirement benefits

Users can opt to provide employer retirement contributions equivalent to 17 percent of employee salary. This percentage is based on the average retirement contribution that public school teachers receive.⁸

Health insurance

Users can also adjust the tool so that employers provide a \$5,300 annual contribution to employee health insurance. The national average employer contribution for a single coverage plan determines this amount.⁹

Ratios and group sizes

Users have the option to change the ratios and group size in the classrooms so that they go beyond the state licensing standards. The tool uses best-practice ratios from the National Association for the Education of Young Children (NAEYC) as the quality option. In cases where the NAEYC teacher-child ratio or group size might be higher than the state licensing minimum, the state minimum is used instead. In the tool, each classroom is staffed with two teachers, so the group size is limited both by NAEYC maximums and by the maximum teacher-child ratio for a two-teacher classroom.

TABLE 6
NAEYC ratios and group sizes

Age group	Teacher-child ratio	Maximum group size
Infant	1-to-4	8
Toddler	1-to-6	12
Preschool	1-to-10	20

Source: National Association for the Education of Young Children, "Standard 10: Leadership and Management" (2017), available at https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/Standard%2010_Sept%202017_1.pdf.

Teacher planning time

The base model program includes eight hours per week for the lead teacher to be relieved from classroom responsibilities in order to engage in lesson planning, data analysis, family engagement, and other noninstructional core activities. Users have the option to increase this planning time to 12 hours per week in order to provide additional support for the lead teacher to engage in these activities.

When users select this increased planning-time option, the tool accounts for the increased cost of paying a substitute in order to maintain ratios in the classroom. Substitute costs are calculated based on the higher of the state or federal minimum wage.

Classroom size

Users have the option to increase the physical space required for each child in the program. This increases the size of the classroom without increasing the number of children served, thus providing a larger learning environment for each child. Selecting this option in the interactive increases the default square footage per child by 20 percent, resulting in increased occupancy costs.

TABLE 7
State physical space requirements, in square feet

State	Minimum per child indoor licensing requirement	Total minimum per child requirement, including shared space	Total per child space, with 20% addition
Alabama	32	62	74
Alaska	35	65	78
Arizona	35	65	78
Arkansas	35	65	78
California	35	65	78
Colorado	30	60	72
Connecticut	35	65	78
District of Columbia	35	65	78
Delaware	35	65	78
Florida	35	65	78
Georgia	35	65	78
Hawaii	35	65	78
Idaho	35	65	78
Illinois	35	65	78
Indiana	35	65	78
Iowa	35	65	78
Kansas	35	65	78
Kentucky	35	65	78
Louisiana	35	65	78
Maine	35	65	78
Maryland	35	65	78
Massachusetts	35	65	78
Michigan	35	65	78
Minnesota	35	65	78
Mississippi	35	65	78
Missouri	35	65	78
Montana	35	65	78

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State	Minimum per child indoor licensing requirement	Total minimum per child requirement, including shared space	Total per child space, with 20% addition
Nebraska	35	65	78
Nevada	35	65	78
New Hampshire	40	70	84
New Jersey	35	65	78
New Mexico	35	65	78
New York	35	65	78
North Carolina	25	55	66
North Dakota	35	65	78
Ohio	35	65	78
Oklahoma	35	65	78
Oregon	35	65	78
Pennsylvania	40	70	84
Rhode Island	45	75	90
South Carolina	35	65	78
South Dakota	35	65	78
Tennessee	30	60	72
Texas	30	60	72
Utah	35	65	78
Vermont	35	65	78
Virginia	35	65	78
Washington	35	65	78
West Virginia	35	65	78
Wisconsin	35	65	78
Wyoming	35	65	78
United States	35	65	78

Note: United States category is based on average across all 50 states.

Source: U.S. Department of Health and Human Services, "Data Explorer and State Profiles," available at <https://childcareta.acf.hhs.gov/data> (last accessed December 2017).

Education supplies and equipment

When users select the option to increase resources available for education supplies and equipment, the interactive calculates a 30 percent increase to the base model allocation for these supplies. These additional resources can be used to purchase additional classroom materials—such as books; arts and crafts; and toys—or developmentally appropriate educational technology, such as tablets and computers.

Limitations

The interactive is intended to illustrate the cost of providing high-quality early learning in a child care center and to highlight the various components that make up that cost. It enables users to model the impact of different cost drivers on the per-child cost of care, yet it is not intended to replicate the exact budget of any one child care center or to replace the need for in-depth cost modeling. Rather, the tool can be used to illustrate the impact of paying higher teacher salaries, increasing benefits, and making other changes that affect the quality of a program. It also helps the public to better understand the actual expenses related to child care. Tools such as the Provider Cost of Quality Calculator can be used for more in-depth cost modeling, and states can also engage in a detailed cost-of-quality study.¹⁰

In order to model these costs and impacts at the state level, it is necessary to make several assumptions and to limit the number of options from which users can choose. The assumptions used in the tool are based on the best data available, the professional judgment of several experts, and prior cost-of-quality studies.

The tool only calculates the cost of a full-day, full-year program in a child care center. Many of the same cost drivers exist in family child care homes; however, the net revenue of such a program is usually the only compensation the provider receives. In addition, many families currently utilize a patchwork of care to cover their child care needs, including family child care homes, part-time programs, and family friend and neighbor care. Future research could estimate the costs of high-quality early childhood education in family child care homes and in part-day or part-year programs.

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Simon Workman is the associate director of Early Childhood Policy at the Center for American Progress.

Endnotes

- 1 U.S. Office of Child Care, “Provider Cost of Quality Calculator,” available at www.ecequalitycalculator.com (last accessed December 2017).
- 2 Program size is based on the defaults used in the National Center on Early Childhood Quality Assurance, “Early Care and Education Program Characteristics: Effects on Expenses and Revenues” (2014), available at https://childcareta.acf.hhs.gov/sites/default/files/public/pcqc_ece_characteristics_final.pdf.
- 3 U.S. Bureau of Labor Statistics, “Economic News Release, Table 1. Civilian workers, by major occupational and industry group,” available at <https://www.bls.gov/news.release/ecec.t01.htm> (last accessed December 2017).
- 4 These contributions are consistent XX OK? XX with defaults used in the National Center on Early Childhood Quality Assurance, “Increasing Quality in Early Care and Education Programs: Effects on Expenses and Revenues” (2015), available at https://childcareta.acf.hhs.gov/sites/default/files/public/pcqc_increase_quality_final.pdf.
- 5 Nonteacher personnel expenses can be allocated on a per-classroom basis and then on a per-child basis, or they can be allocated on a per-child basis across the whole program. Some personnel, such as the education coordinator, are more likely to have responsibilities that are shared equally across the four classrooms; others, such as the administrative assistant, are likely to work more directly with families or on child administrative issues. To account for the large gap that exists between classroom-level costs for infants and preschoolers, the developers of this tool chose to equally share nonteacher personnel costs across all children rather than on a classroom basis.
- 6 U.S. Bureau of Economic Analysis, “Real Personal Income for States and Metropolitan Areas, 2015,” available at https://www.bea.gov/newsreleases/regional/rpp/rpp_newsrelease.htm (last accessed December 2017).
- 7 U.S. Bureau of Labor Statistics, “May 2016 National Occupational Employment and Wage Estimates United States,” available at https://www.bls.gov/oes/2016/may/oes_nat.htm (last accessed December 2017).
- 8 Chad Aldeman and Kelly Robson, “Why Most Teachers Get a Bad Deal on Pensions,” *Education Next*, May 16, 2017, available at <http://educationnext.org/why-most-teachers-get-bad-deal-pensions-state-plans-winners-losers/>.
- 9 The Henry J. Kaiser Family Foundation, “2016 Employer Health Benefits Survey” (2016), available at <http://kff.org/report-section/ehbs-2016-summary-of-findings/>.
- 10 For more information on cost modeling, see, for example, Alliance for Early Childhood Finance, “Cost Modeling,” available at <http://www.earlychildhoodfinance.org/finance/cost-modeling> (last accessed December 2017).