

# Child Care in State Economies

2019 Update





This report was produced by RegionTrack, Inc., an economic research firm, and commissioned by the Committee for Economic Development of The Conference Board with funding from the Alliance for Early Success. It provides a broad overview of the child care industry from the perspective of allowing parents to participate in the labor force (or to further education and training), and as an industry that employs workers and is an integral part of state economies.

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**T**HE 2019 EDITION of *Child Care in State Economies* provides an update to the initial version of the report released in 2015 by the Committee for Economic Development (CED). This edition provides policymakers and business leaders with a current and revised examination of the economic role played by the U.S. child care industry at the state and national levels.

*The report maintains its unique perspective among child care research by assessing the industry's various economic contributions to the broader economy, particularly at the state level. Key areas of focus remain the role played by child care in the labor market; factors driving the demand for child care; the size, structure, and economic contribution of the child care industry; and the role child care can play in regional economic development.*

*The U.S. child care industry remains in an ongoing state of change as increasing numbers of children continue to move into the traditional child care ages. The updates capture both the steadily increasing number of children in organized care and the ongoing growth of the child care industry itself in supporting them. An important feature of the report is the use of more recent survey measures of the number of preschool-aged children in organized child care. Updated estimates of the cost of care at the state level are provided as well.*

*Extensive updates are similarly made to the comprehensive dataset provided on the size and structure of the organized child care industry discussed throughout the report. For example, one of the most fundamental updates to the initial report is the reported 13.7 percent increase in total U.S. child care industry revenue, rising to \$47.2 billion.*

*The updated report narrative reflects ongoing changes taking place in the child care sector within each state. These include the ever-changing use of child care by families, changes in the methods of care provided, and the effects and influence of policymakers on child care use and provision. A key change examined is the contraction in the number of home-based care providers in most states.*

*The revised version of the report also reflects the increased economic contribution of the child care sector over time. Updated estimates of the direct and spillover economic contributions made by the organized child care sector are provided for the nation and each state.*

*The updated report can be used independently, or comparisons can be made with the initial report. All updated results are directly comparable to those in the initial report except where noted. A small number of topics were not continued from the initial version of the report due to data discontinuities. All datasets used in the updated report provide for ongoing historical continuity, including both those discussed in the report and accompanying electronic materials provided by CED.*

## About This Report

*Child Care in State Economies: 2019 Update* uses a consistent data set for all states that reflects the use of paid, or market-based, child care services. The overall size of the paid child care industry (i.e., number of establishments, employment, and revenue) at the national and state levels is determined using U.S. Census Bureau Economic Census and County Business Pattern data as well as Non-employer Statistics data reported by the Census Bureau for 2016. The definition of child care varies greatly across the states (i.e., licensed care,

registered care, listed care, certified care, license-exempt care, etc.). Therefore, industry estimates may vary state by state depending upon the data sources used. The U.S. Census Bureau data used in this report reflects data sets with regard to sole proprietors (businesses that have no paid employees and are subject to federal income tax who report child care income) and data related to child care centers (businesses with paid employees in the child care industry sector). Both nonprofit and tax-paying entities are reflected.



# I. Introduction to the Economic Role of Child Care

The purpose of this report is to educate and aid policymakers and business leaders in understanding the structure of the U.S. child care industry and its role in the economy.

The economic role of the industry is examined using three distinct perspectives: the traditional labor force view of child care as a means for parents to work; the child care industry's macroeconomic role in the U.S. economy; and the role played by child care in regional economic growth and development. Much of the existing research on the economics of child care focuses on the traditional role child care plays in enabling parents to work. Helping parents participate in the labor force remains child care's single most important economic contribution and is vital to many working parents. The dimension of child care that is not as well understood is the supporting role child care plays in regional economic growth and development. Child care supports regional growth primarily through its indirect support of increased labor force participation and the education of the workforce in a region.

## The economic role of the child care industry is examined in three ways:

- The traditional labor force view of child care as a work, education, and training support for parents,
- The child care industry's macroeconomic role in the U.S. economy, and
- The role played by child care in regional economic growth and development.

The report evaluates the economic role of child care at the state level in extensive detail. The structure of the child care industry varies greatly across the states, largely as a result of the state-level framework in place for both regulating the industry and administering child care assistance programs. Substantial variation is present in child care usage rates, the cost of care, and the mix of child care providers at the state level. These

differences play a large role in determining the size of the potential economic linkages between the child care industry and the broader economy as well as the potential implications of those linkages.

The analysis focuses on organized child care providers who typically offer care on a paid basis. This definition of the industry captures market-based forms of care that produce measurable economic activity.

The remainder of the report examines in detail the various economic roles of the child care sector as well as the economic channels through which child care contributes to the broader economy.

The first section examines the traditional role of organized child care in enabling parents to work. Organized child care providers currently serve one in three children ages 4 and under and one in four children under age 14. The use of organized child care varies widely based on demographic and economic characteristics of the child, mother, and household. There is also significant variation in the use of child care across the states.

The next section examines key factors currently driving the usage of organized child care in the United States. These factors include shifts in the labor force participation rate of women, the decline of two-parent households, and a growing share

of unmarried mothers. Access to organized child care services is a potential tool for attracting and retaining parents affected by these factors who might otherwise opt out of the labor force. The cost of organized child care remains a significant financial hurdle for many families, particularly for low-income and low-skilled workers. The cost of child care at the state level is determined by many factors, including the age of the child, the type of child care provider selected, child care licensing requirements, and the overall cost of living. Public efforts to help offset the cost of care, primarily in the form of tax credits and child care subsidies, can play a major role in assisting low-income working parents to enter the labor force.

The next section examines the direct and spillover contributions of the child care industry to broader economic activity at the national and state levels. The U.S. child care industry consists of a large network of nearly 675,000 small businesses.<sup>1</sup> Total revenue produced by the industry reached \$47.2 billion in 2016 and provided employment for more than 1.5 million wage and salary workers and self-employed family child care home operators.

The final section examines the role played by child care in regional economic growth and discusses child care's potential to support economic development at the state level. Access to child care plays an indirect, but vital, role in raising the labor force participation rate and education level of the workforce in a region. Both of these factors have long been recognized as key determinants of economic growth.

In 2016,  
**675,000**  
child care businesses,  
which are mostly small  
businesses, produced  
revenue of  
**\$47.2 billion**  
and provided  
employment for  
**1.5 million**  
wage and salary and  
self-employed workers.

## II. How Child Care is Organized in the U.S.

The most fundamental economic contribution of child care remains the role it plays in enabling parents to work. In addition to relatives and other informal care arrangements, many working parents rely upon organized, or market-based, child care. The use of organized child care varies widely across U.S. families. The age of the child and demographic characteristics of both the child and mother play a large role in determining the likelihood that a child is enrolled in organized care. There is also substantial variation in the use of organized child care across the states driven by differences in regulatory structure, demographic and economic characteristics, cultural preferences, and other factors.

### Defining the Organized Child Care Industry

No uniform standards or guidelines exist for tracking either the number of children in child care or the size of the child care industry. Federal surveys of the sector routinely use multiple definitions when collecting and reporting child care-related data. Definitions for the

About **11.8 million (58.7%)** of children under age 5 participate in regular, weekly care arrangements with a non-parental provider.

industry also vary widely across the states, largely as a result of the state-level structure in place for both regulating the industry and administering child care assistance programs.

The definition of the industry used in this report focuses on organized child care providers that provide market-based child care services.

This definition excludes most

forms of informal, or nonmarket, care typically provided by parents, grandparents, and other relatives.<sup>2</sup> These forms of child care are excluded because they represent household production rather than market production and do not produce measurable economic activity as a result. This is not meant to suggest that household production of child care does not constitute meaningful economic activity, but simply that it is difficult to measure the value of this production because it is not traded in any market. Although the focus of the report is on market-based care available to families through a structured market, subsidies may cover a portion, or possibly all, of the cost of organized care for some families.

Most child care providers as described in the report operate as formal business entities and are tracked by state and federal taxing authorities. Both private and public providers of care are included, as are both for-profit and nonprofit care providers. In many states, the definition of a child care provider would mostly comprise the group of regulated providers. However,

definitions of licensed, regulated, registered, and license-exempt (unlicensed) care vary by state.<sup>3</sup>

Market-based child care services generally are delivered in an organized care facility or a home-based setting. The two primary types of providers are most often referred to as traditional child care centers and family child care homes. Other organized child care providers commonly grouped with child care centers include nursery schools, preschools, and Head Start programs. Center-like child care facilities are also commonly operated by religious organizations<sup>4</sup> and employers. Family child care homes may include providers who care for children either inside or outside the child's home, though typically in the provider's own residence.

Both working and nonworking mothers use organized child care. The great majority are working mothers who hold either full- or part-time employment. Nonworking mothers who use child care include those enrolled in school, receiving job training, or looking for work, as well as those out of the labor force temporarily for other reasons. Some mothers use organized child care even though they are not actively in the labor force or pursuing education or training.

### Child Care Usage Surveys

Numerous large-scale surveys undertaken in the past two decades provide detailed information on the child care arrangements used by U.S. families.<sup>5</sup> Along with data on the frequency of care, types of providers utilized, cost and subsidies, and quality of care, these surveys typically assess a range of demographic and household characteristics of children and their parents.

Two major child care usage surveys are used in this section of the report to describe child care usage rates and the characteristics of children in care. Care arrangements for preschoolers under the age of 5 are described using the 2016 National Household Education Surveys Program (NHES) Early Childhood Program Participation (ECP) surveys.<sup>6</sup> ECP surveys are administered by the National Center for Education Statistics within the U.S. Department of Education.<sup>7</sup>

The percentage of children under age 5 in non-parental care for at least 10 hours per week ranges from a low of **32.5%** in Nevada to a high of **75.7%** in the District of Columbia.



The ECPP survey addresses participation in regular *nonparental* forms of care and education programs for children ages 6 and under who have not yet enrolled in kindergarten. Covered forms of care include relative, non-relative, center-based, and Head Start programs.<sup>8</sup> The survey focuses on identifying a child’s primary care arrangement(s). If a child participates in a regular weekly arrangement for a particular type of care, parents answer detailed questions about that care arrangement. The survey includes extensive questions on care arrangements and provides background, demographic, and household information about children and their families. The 2016 vintage of the ECPP data provides a recent cohort of children relative to most available surveys. Similar ECPP surveys were completed in 2001, 2005, and 2012 and provide historical context on child care usage patterns.

The care arrangements of school-age children ages 5 to 14 are described using the Survey on Income and Program Participation (SIPP) administered by the Census Bureau.<sup>9</sup> SIPP surveys traditionally focus on measuring the effectiveness of federal, state, and local government programs by tracking income, labor force participation, social program participation and eligibility, and general demographic characteristics of families. Special topical modules of SIPP, including child care, are administered periodically along with

the core survey. Responses based on 2013 survey data for the 2011 SIPP Wave are used to describe the care arrangements of school-aged children.

### Child Care Arrangements in the U.S.

There are 61.0 million children ages 14 and under in the United States, and all are potential candidates for organized child care. About one-third (19.9 million) are preschoolers under the age of 5; the remaining two-thirds (41.1 million) are school-aged children between the ages of 5 and 14.

It is important to note that organized care is rarely the sole form of child care used. Families often use multiple care arrangements, with organized care serving as either the sole or primary source of care or even as a secondary or minor source of care. Child care arrangements also differ greatly for preschool versus school-age children. Preschoolers use more parental and organized forms of child care, while school becomes the primary care arrangement for most school-aged children.

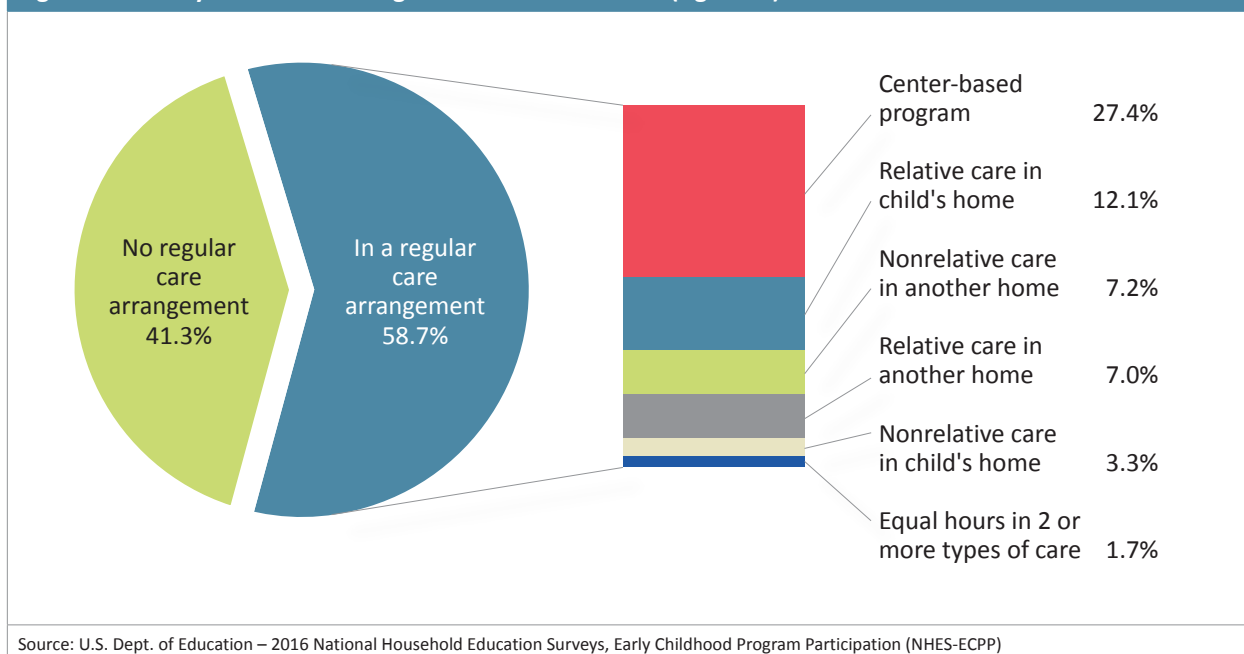
**Preschoolers.** Figure 1 summarizes 2016 ECPP survey data describing child care arrangements for preschoolers under the age of 5. These care arrangements fall under the broad categories of relative and nonrelative care, with nonrelative care generally considered organized child care throughout the report.

**Figure 1. Nonparental Child Care Arrangements of Preschoolers Under 5 Years (2016)**

Care Arrangement	Number of Children	Percentage of Total Care Arrangements
<b>Total children under 5 years</b>	<b>20,059,111</b>	<b>100.0%</b>
<b>IN A REGULAR NONPARENTAL ARRANGEMENT</b>	<b>11,777,905</b>	<b>58.7%</b>
<b>Relative Care</b>	4,936,767	24.6%
Grandparent	3,906,541	19.5%
Aunt/Uncle	622,550	3.1%
Sibling	179,239	0.9%
Other Relative	228,436	1.1%
<b>Non-Relative Care</b>		
Care Facility:	6,628,491	33.0%
Child Care Center	2,429,203	12.1%
Preschool	3,118,620	15.5%
Prekindergarten	1,080,668	5.4%
Other Nonrelative Care:	2,696,451	13.4%
Own Home	754,859	3.8%
Provider Home	1,808,757	9.0%
Both Own and Provider	132,835	0.7%
Other Home Care	110,648	0.6%
<b>NO REGULAR NONPARENTAL ARRANGEMENT</b>	<b>8,281,205</b>	<b>41.3%</b>

Source: U.S. Dept. of Education – 2016 National Household Education Surveys, Early Childhood Program Participation Notes: Category sums may exceed the totals due to multiple primary care arrangements reported for many children.

**Figure 2. Primary Child Care Arrangement for Preschoolers (Ages 0-4)**



Whereas parental care remains the primary reported arrangement for 41.3 percent of preschoolers, more than half (58.7 percent or 11.8 million) participate in a regular, weekly care arrangement with a nonparental provider.

Organized child care facilities are used regularly by one-third (33.0 percent) of children under age 5, including preschools (15.5 percent), child care centers (12.1 percent), and pre-kindergarten programs (5.4 percent).

Other forms of nonrelative home-based care either at the child's home or the home of a provider are used regularly by 13.4 percent (2.7 million) of preschoolers. Two of three children (9.0 percent) in nonrelative home-based care receive care within a provider's home while 3.8 percent receive care in their own home.

Nonparental relative care (i.e., siblings, grandparents, or other relatives) remains a commonly reported regular care arrangement, cited for one-fourth (24.6 percent) of all preschoolers. Adult relatives including grandparents (19.5 percent) and aunts or uncles (3.1 percent) are the most common source of relative care for preschoolers, with siblings and other relatives providing a small share (2.0 percent).

**Preschoolers - Primary Arrangement.** Although most children are commonly placed in multiple forms of care, a child's primary care arrangement (defined as the source of care used the most hours each week) is relied upon most heavily by working parents. Figure 2

describes the reported primary care arrangements of preschoolers in the ECPP survey.

By type of nonparental care, child care centers serve as the primary form of care for 27.4 percent of preschoolers. Relatives providing care either in the child's home (12.1 percent) or in another home (7.0 percent) provide care for 19.1 percent of preschoolers. Nonrelative care is the primary regular arrangement for 10.5 percent of preschool children, with more than twice the share receiving care in another home (7.2 percent) than in the child's home (3.3 percent).

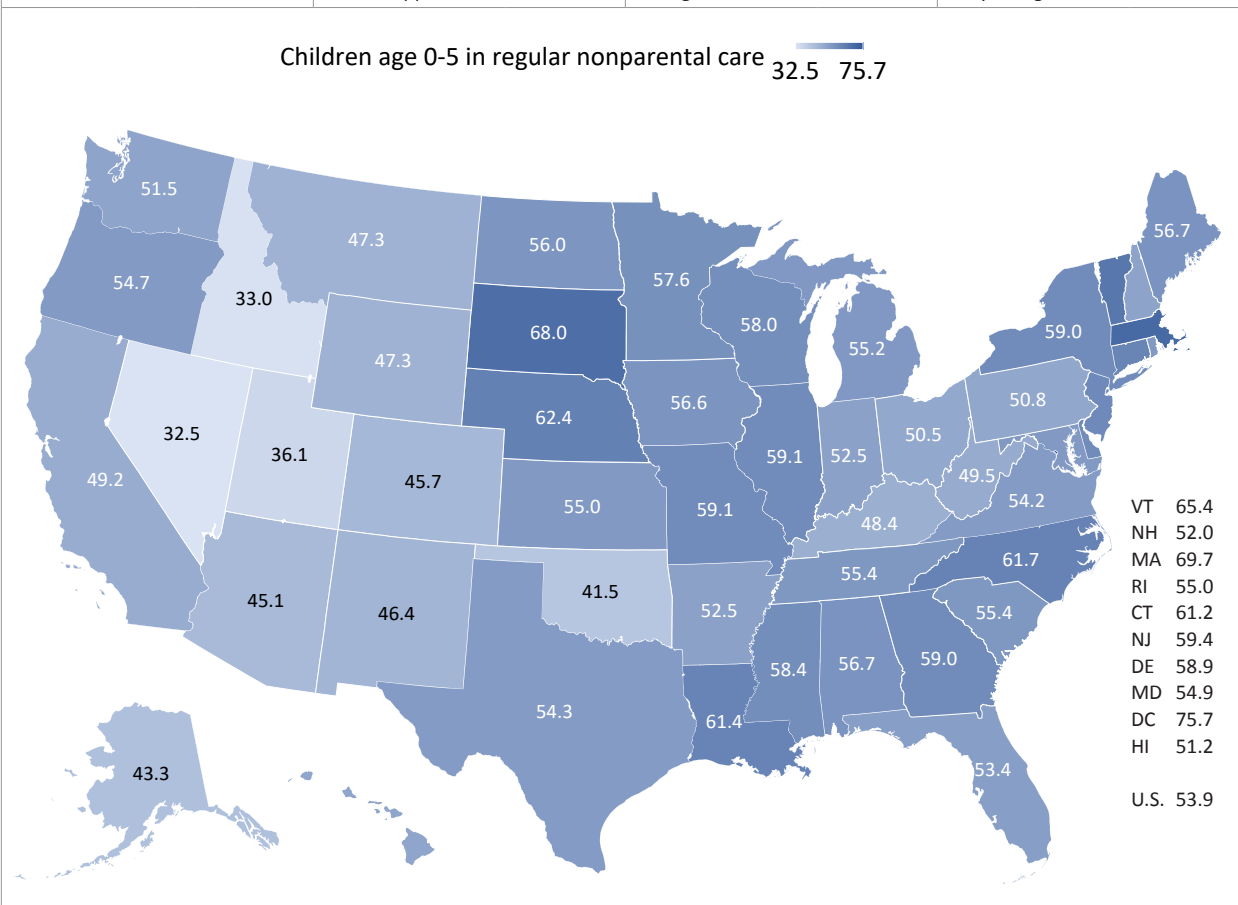
**Preschoolers in Nonparental Care by State.**

The National Survey of Children's Health (NSCH) administered by the U.S. Department of Health and Human Services similarly asks parents about the regular use of nonrelative care for preschool-aged children.<sup>10</sup> NSCH data for the combined 2016 and 2017 period finds that 53.9 percent of all children ages 0 to 5 (12.56 million) participate in a nonparental care arrangement for at least 10 hours per week. This is only slightly lower than the 58.7 percent share found for the slightly younger group of children ages 0 to 4 in the ECPP data.<sup>11</sup>

The large sample used in the NSCH survey allows for state-level estimates of preschoolers in regular nonparental care shown in Figure 3. The share varies from a low of 32.5 percent in Nevada to a high of 75.7 percent in the District of Columbia.

**Figure 3. Share (%) of Children Ages 0-5 in Nonparental Care for More than 10 Hours per Week**

UNITED STATES	53.9%	Idaho	33.0%	Missouri	59.1%	Pennsylvania	50.8%
Alabama	56.7%	Illinois	59.1%	Montana	47.3%	Rhode Island	55.0%
Alaska	43.3%	Indiana	52.5%	Nebraska	62.4%	South Carolina	55.4%
Arizona	45.1%	Iowa	56.6%	Nevada	32.5%	South Dakota	68.0%
Arkansas	52.5%	Kansas	55.0%	New Hampshire	52.0%	Tennessee	55.4%
California	49.2%	Kentucky	48.4%	New Jersey	59.4%	Texas	54.3%
Colorado	45.7%	Louisiana	61.4%	New Mexico	46.4%	Utah	36.1%
Connecticut	61.2%	Maine	56.7%	New York	59.0%	Vermont	65.4%
Delaware	58.9%	Maryland	54.9%	North Carolina	61.7%	Virginia	54.2%
District of Columbia	75.7%	Massachusetts	69.7%	North Dakota	56.0%	Washington	51.5%
Florida	53.4%	Michigan	55.2%	Ohio	50.5%	West Virginia	49.5%
Georgia	59.0%	Minnesota	57.6%	Oklahoma	41.5%	Wisconsin	58.0%
Hawaii	51.2%	Mississippi	58.4%	Oregon	54.7%	Wyoming	47.3%



Source: Child and Adolescent Health Measurement Initiative. 2016-2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved December 8, 2018 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org).

**Figure 4. Child Care Arrangements of School-Aged Children (2017)**

Characteristic	Number of Children	Share of Total Arrangements
<b>Total Children Ages 5-14 Years</b>	<b>41,082,692</b>	<b>100.0%</b>
<b>IN A REGULAR ARRANGEMENT</b>		
<b>Relative Care</b>	18,505,842	45.0%
Parents	7,700,210	18.7%
Sibling	3,326,857	8.1%
Grandparent	5,485,854	13.4%
Other Relative	1,992,920	4.9%
<b>Nonrelative Care</b>	4,233,891	10.3%
Care Facility	2,087,669	5.1%
Nonrelative In child's home	896,388	2.2%
Nonrelative in providers home	1,249,834	3.0%
<b>OTHER ARRANGEMENTS</b>		
School	38,416,948	93.5%
Enrichment activity	6,327,948	15.4%
Self-care	4,511,750	11.0%
<b>NO REGULAR ARRANGEMENT</b>	<b>20,907,566</b>	<b>50.9%</b>

Source: U.S. Dept. of Education and Census Bureau-2013 SIPP Survey: Spring 2011 Panel  
Notes: Category sums may exceed the totals due to multiple arrangements reported for many children. Shares derived from the SIPP survey are used to apportion population of children ages 5-14 in 2017.

**School-Aged Children.** School becomes the most important care arrangement for children once they reach school age and is reported as a regular arrangement for 93.5 percent of children ages 5 to 14. Relative care remains important and is cited as a regular arrangement for 45.0 percent of school-aged children.

**Share of Children in Paid Child Care.** The availability of paid child care plays a key role in allowing parents with children to remain in the labor force. These facilities typically provide child care services on a paid basis, whether paid directly by the family or provided indirectly through other means. The Census Bureau’s Current Population Survey (CPS) provides an alternative measure of the use of child care among households at the state level.<sup>12</sup> The survey captures the use of all forms of paid care, including relatives who receive pay to care for related children.

The role of paid care is underscored by the extensive use of child care facilities and home-based care providers reported by U.S. families. Current Population Survey estimates in Figure 5 indicate that nearly one-fourth (24.1 percent) of children ages 14 and under were in a form of paid child care in the 2010 to 2018 period. For preschoolers under the age of 5, nearly one-third (31.9 percent) are reported in paid care. The share of children in paid care remains highly stable in the 2010 to 2018 period.

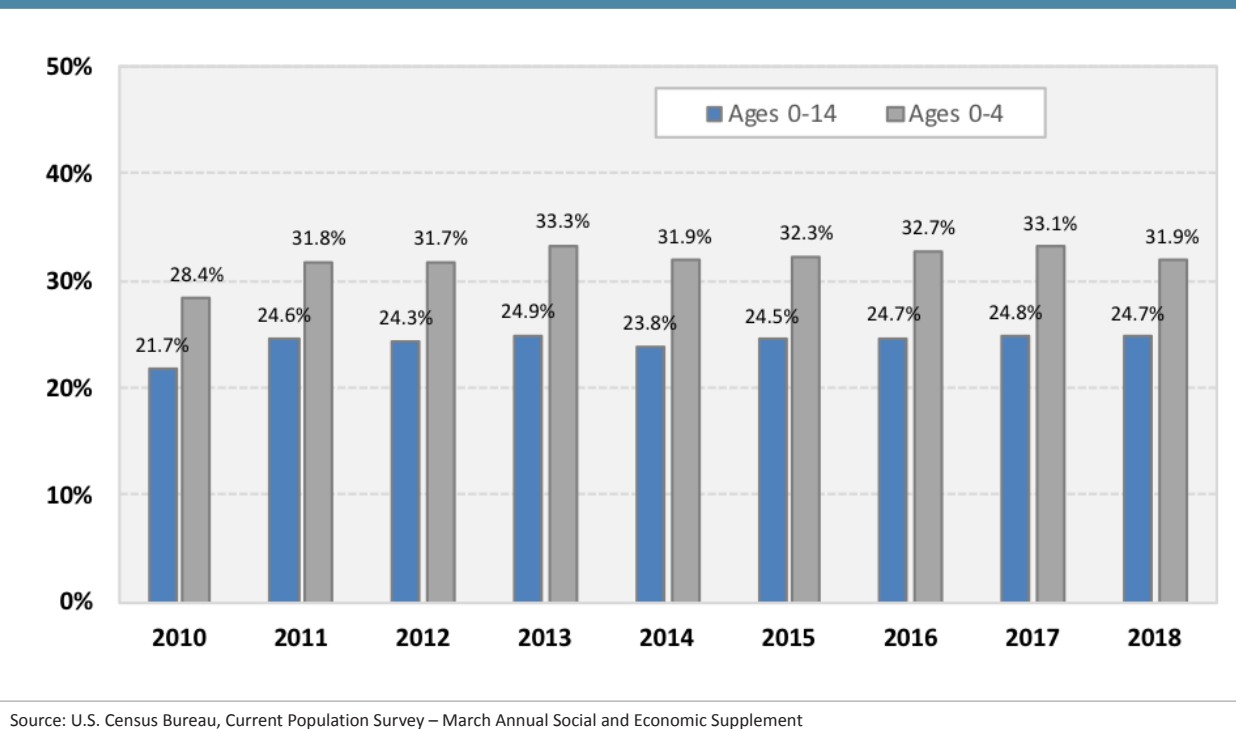
**The labor force participation rate of mothers with children under age 6 has steadily increased between 2005 and 2017 to 65.1%.**

The use of organized child care becomes much less prevalent among the nation’s 41.1 million school-aged children ages 5 to 14 (see Figure 4) relative to preschoolers. Only 10.3 percent of all school-aged children participate in one or more forms of organized child care on a regular basis. These 4.0 million school-aged children continue using formal nonrelative

care at child care centers and home-based facilities after entering school.

Enrichment activities such as music and sports for school-aged children are cited for 15.4 percent of children ages 5 to 14. Self-care is a regular arrangement for 11.0 percent of school-aged children. A little more than half (50.9 percent) of school-aged children report having no regular child care arrangement in place.

Figure 5. Share of U.S. Children in Paid Child Care by Age



### Characteristics of Families and Children Using Organized Care

The child care arrangements of U.S. families vary along many key demographic and economic characteristics of the child, parent, and household. Figure 6 details these characteristics for preschoolers under age 5 as reported in the ECPP survey. Results are tabulated for children in a regular weekly nonparental child care arrangement and evaluated relative to those without a regular arrangement.

Child care usage rates at the household level are closely related to several characteristics, including the age of the child, demographics of the parents and children, household structure, and the work status and work schedule of the parents.

**Age of the Child.** The most fundamental factor driving the usage of nonparental child care is the age of the child. The likelihood of a child being in a regular weekly care arrangement rises steadily during the pre-school years. Only 47.4 percent of all infants (less than 1 year old) are reported in regular care, versus 54.0 percent of 1- and 2-year-olds and 73.0 percent of 3- and 4-year-olds.

**Education.** Parents with higher education are much more likely to use a formal child care arrangement. Two-thirds (67.5 percent) of parents with a bachelor's degree or higher use regular weekly care versus less than half (44.6 percent) of parents with a high school education or less.

Among children in a regular care arrangement, nearly 80 percent have a parent who completed education beyond high school. Conversely, among children with no regular nonparental care arrangement, the share of parents with some post-high school education falls to only 60 percent.

Patterns of child care usage differ greatly at the extremes of the education range. Only 38.0 percent of children whose parents have less than a high school education use some form of regular nonparental care, versus 74.7 percent of children with a parent who attained a graduate or professional degree.

**Income and Poverty.** Due to its close link with education, household income is also closely related to the use of organized care. The share of children in regular care is approximately 50 percent across all income ranges up to \$60,000 but rises sharply among children from higher income households. The share rises to 61.7 percent of children with household income between \$60,001 and \$100,000, 71.3 percent

The likelihood of a child under age 5 being in regular child care increases as children age.

47.4% of all infants are in child care.

54% of 1 and 2 year-old children are in child care.

73% of 3-and 4-year old children are in child care.

**Figure 6. Characteristics of Preschool Children Under 5 by Child Care Arrangement**

Characteristics of Child/Family/Household	Care Arrangement							
	Total Children		Regular Weekly Care			No Regular Weekly Care		
	Count	Share of Category Total	Count	Share of Total Children	Share of Category Total	Count	Share of Total Children	Share of Category Total
<b>CHILDREN</b>								
Total (under age 5)	20,059,111	100.0%	11,777,905	58.7%	100.0%	8,281,205	41.3%	100.0%
<b>SEX</b>								
Male	10,115,862	50.4%	5,982,024	59.1%	50.8%	4,133,838	40.9%	49.9%
Female	9,943,248	49.6%	5,795,881	58.3%	49.2%	4,147,367	41.7%	50.1%
<b>CHILD AGE</b>								
0	4,724,175	23.6%	2,236,990	47.4%	19.0%	2,487,185	52.6%	30.0%
1	4,612,997	23.0%	2,392,919	51.9%	20.3%	2,220,078	48.1%	26.8%
2	3,938,552	19.6%	2,226,246	56.5%	18.9%	1,712,307	43.5%	20.7%
3	3,404,284	17.0%	2,323,908	68.3%	19.7%	1,080,375	31.7%	13.0%
4	3,379,103	16.8%	2,597,842	76.9%	22.1%	781,261	23.1%	9.4%
<b>RACE OF CHILD</b>								
White, non-Hispanic	10,127,749	50.5%	6,233,600	61.5%	52.9%	3,894,150	38.5%	47.0%
Black, non-Hispanic	2,580,158	12.9%	1,709,281	66.2%	14.5%	870,877	33.8%	10.5%
Hispanic	5,117,807	25.5%	2,549,141	49.8%	21.6%	2,568,666	50.2%	31.0%
Asian or Pacific Islander, non-Hispanic	934,620	4.7%	531,175	56.8%	4.5%	403,445	43.2%	4.9%
All other and multiple races, non-Hispanic	1,298,776	6.5%	754,709	58.1%	6.4%	544,068	41.9%	6.6%
<b>FAMILY TYPE</b>								
Two parents and sibling(s)	11,517,716	57.4%	6,205,228	53.9%	52.7%	5,312,488	46.1%	64.2%
Two parents, no sibling	3,914,312	19.5%	2,442,030	62.4%	20.7%	1,472,282	37.6%	17.8%
One parent and sibling(s)	2,409,247	12.0%	1,417,074	58.8%	12.0%	992,173	41.2%	12.0%
One parent, no sibling	1,769,047	8.8%	1,395,226	78.9%	11.8%	373,821	21.1%	4.5%
Other	448,789	2.2%	318,347	70.9%	2.7%	130,441	29.1%	1.6%
<b>ENGLISH SPOKEN AT HOME</b>								
Both/only parent(s) learned English first	17,154,612	85.5%	10,417,711	60.7%	88.5%	6,736,901	39.3%	81.4%
One of two parents learned English first	682,622	3.4%	345,603	50.6%	2.9%	337,019	49.4%	4.1%
No parent learned English first	2,221,877	11.1%	1,014,592	45.7%	8.6%	1,207,285	54.3%	14.6%
<b>EDUCATION OF PARENT(S)/GUARDIAN(S)</b>								
Less than high school diploma	2,048,589	10.2%	778,058	38.0%	6.6%	1,270,530	62.0%	15.3%
High school credential	3,913,075	19.5%	1,878,390	48.0%	15.9%	2,034,685	52.0%	24.6%
Vocational/technical ed. after high school	4,830,193	24.1%	2,866,853	59.4%	24.3%	1,963,341	40.6%	23.7%
College graduate	5,606,829	28.0%	3,519,297	62.8%	29.9%	2,087,532	37.2%	25.2%
Graduate or professional school	3,660,424	18.2%	2,735,307	74.7%	23.2%	925,118	25.3%	11.2%
<b>WORK STATUS OF PARENT(S)/GUARDIAN(S)</b>								
<b>TWO-PARENT/GUARDIAN FAMILY</b>								
Both full time	5,812,062	29.0%	5,135,813	88.4%	43.6%	676,249	11.6%	8.2%
One full time, one part time	2,334,596	11.6%	1,592,906	68.2%	13.5%	741,690	31.8%	9.0%
One full time, one not in labor force	6,163,628	30.7%	1,664,197	27.0%	14.1%	4,499,431	73.0%	54.3%
Other	1,688,673	8.4%	675,212	40.0%	5.7%	1,013,461	60.0%	12.2%
<b>SINGLE-PARENT/GUARDIAN FAMILY</b>								
Working 35 hours or more per week	2,042,373	10.2%	1,704,619	83.5%	14.5%	337,755	16.5%	4.1%
Working less than 35 hours per week	678,843	3.4%	393,591	58.0%	3.3%	285,251	42.0%	3.4%
Looking for work	371,264	1.9%	184,557	49.7%	1.6%	186,707	50.3%	2.3%
Not in the labor force	967,672	4.8%	427,011	44.1%	3.6%	540,661	55.9%	6.5%

Continued

**Figure 6. (Cont.) Characteristics of Preschool Children Under 5 by Child Care Arrangement**

Characteristics of Child/Family/Household	Care Arrangement							
	Total Children		Regular Weekly Care			No Regular Weekly Care		
	Count	Share of Category Total	Count	Share of Total Children	Share of Category Total	Count	Share of Total Children	Share of Category Total
<b>SCHOOL ENROLLMENT OF PARENT(S)/ GUARDIAN(S)</b>								
Both/only enrolled	903,906	4.5%	590,384	65.3%	5.0%	313,522	34.7%	3.8%
Both/only not enrolled	17,142,721	85.5%	9,949,893	58.0%	84.5%	7,192,828	42.0%	86.9%
One enrolled, one not enrolled	2,012,483	10.0%	1,237,629	61.5%	10.5%	774,854	38.5%	9.4%
<b>REGION</b>								
Northeast	3,207,026	16.0%	2,063,917	64.4%	17.5%	1,143,109	35.6%	13.8%
South	7,351,149	36.6%	4,364,550	59.4%	37.1%	2,986,599	40.6%	36.1%
Midwest	4,275,056	21.3%	2,647,541	61.9%	22.5%	1,627,515	38.1%	19.7%
West	5,225,880	26.1%	2,701,897	51.7%	22.9%	2,523,982	48.3%	30.5%
<b>COMMUNITY TYPE BY ZIP CODE</b>								
City - Large	3,749,174	18.7%	2,219,379	59.2%	18.8%	1,529,795	40.8%	18.5%
City - Midsize	1,572,898	7.8%	915,148	58.2%	7.8%	657,750	41.8%	7.9%
City - Small	1,544,002	7.7%	900,829	58.3%	7.6%	643,172	41.7%	7.8%
Suburb - Large	6,851,924	34.2%	4,144,878	60.5%	35.2%	2,707,046	39.5%	32.7%
Suburb - Midsize	766,404	3.8%	481,637	62.8%	4.1%	284,767	37.2%	3.4%
Suburb - Small	548,581	2.7%	333,232	60.7%	2.8%	215,349	39.3%	2.6%
Town - Fringe	427,948	2.1%	236,274	55.2%	2.0%	191,674	44.8%	2.3%
Town - Distant	889,797	4.4%	481,398	54.1%	4.1%	408,399	45.9%	4.9%
Town - Remote	485,070	2.4%	275,238	56.7%	2.3%	209,832	43.3%	2.5%
Rural - Fringe	1,759,945	8.8%	1,059,447	60.2%	9.0%	700,498	39.8%	8.5%
Rural - Distant	1,163,620	5.8%	564,700	48.5%	4.8%	598,920	51.5%	7.2%
Rural - Remote	299,748	1.5%	165,746	55.3%	1.4%	134,002	44.7%	1.6%
<b>SHARE OF FAMILIES IN POVERTY IN ZIP CODE</b>								
Less than 5 percent	5,780,292	28.8%	3,769,535	65.2%	32.0%	2,010,757	34.8%	24.3%
5 to 9 percent	6,743,907	33.6%	4,019,154	59.6%	34.1%	2,724,752	40.4%	32.9%
10 to 19 percent	5,723,603	28.5%	3,120,845	54.5%	26.5%	2,602,758	45.5%	31.4%
20 percent or more	1,811,309	9.0%	868,372	47.9%	7.4%	942,937	52.1%	11.4%
<b>TOTAL HOUSEHOLD INCOME</b>								
\$0 to \$10,000	1,332,205	6.6%	583,184	43.8%	5.0%	749,021	56.2%	9.0%
\$10,001 to \$20,000	1,579,332	7.9%	757,931	48.0%	6.4%	821,401	52.0%	9.9%
\$20,001 to \$30,000	1,876,370	9.4%	851,409	45.4%	7.2%	1,024,961	54.6%	12.4%
\$30,001 to \$40,000	1,790,984	8.9%	903,070	50.4%	7.7%	887,914	49.6%	10.7%
\$40,001 to \$50,000	1,701,650	8.5%	878,911	51.7%	7.5%	822,740	48.3%	9.9%
\$50,001 to \$60,000	1,539,351	7.7%	747,672	48.6%	6.3%	791,680	51.4%	9.6%
\$60,001 to \$75,000	2,036,433	10.2%	1,212,823	59.6%	10.3%	823,610	40.4%	9.9%
\$75,001 to \$100,000	2,681,749	13.4%	1,713,508	63.9%	14.5%	968,241	36.1%	11.7%
\$100,001 to \$150,000	3,001,402	15.0%	2,138,756	71.3%	18.2%	862,646	28.7%	10.4%
\$150,001 or more	2,519,634	12.6%	1,990,641	79.0%	16.9%	528,993	21.0%	6.4%

Source: U.S. Dept. of Education – 2016 National Household Education Surveys, Early Childhood Program Participation (NHES-ECPP). ECPP sample reduced to children under age 5.

for households with income between \$100,001 and \$150,000, and 79.0 percent for households with income above \$150,000.

Children in families with income above \$60,000 per year make up 51.0 percent of all preschool age children but comprise 60.0 percent of those in regular nonparental care. Conversely, among those children not in regular care, 61.6 percent are from families earning less than \$60,000 per year.

The share of children who participate in regular nonparental care is also far lower in zip codes with higher average poverty levels. Only 47.9 percent of children in zip codes with 20 percent or more of families in poverty report using regular nonparental care, significantly lower than the 65.2 percent share in zip codes with less than 5 percent of families in poverty.

**Use of child care for children under age 5 is highest among two parent families with both parents working full time (88.4%) and single-parent families with the parent working 35 hours or more per week (83.5%).**

**Family Status and Parent's Work Status.** Traditionally, the use of regular nonparental child care for preschoolers is highest among two-parent families with both parents working full time (88.4 percent) and single-parent families with the parent working 35 hours or more per week (83.5 percent). Both family types far exceed the overall usage rate of 58.7 percent across all family types. Usage rates remain far above average for two-parent families with one full-time and one part-time worker (68.2 percent) but are slightly below

average for single-parent households with the parent working less than 35 hours per week (58.0 percent).

Regular usage falls to only 27.0 percent for children in two-parent families with one parent working full time and the other out of the labor force. Fewer than half of children from single-parent families where the parent is either looking for work (49.7 percent) or not in the labor force (44.1 percent) participate in a regular nonparental care arrangement.

**Race.** By race, the usage of nonparental care is slightly lower for white non-Hispanic (61.5 percent) versus black non-Hispanic (66.2 percent) parents. The share is lowest among Hispanic (49.8 percent) parents, while usage is approximately equal to the overall rate for both Asian (20.2 percent) parents and all other parents including those of multiple races (58.1 percent).

**Other Demographics.** Boys are slightly more likely to be enrolled in organized care than are girls (59.1 percent vs. 58.3 percent). The presence of siblings reduces the likelihood of regular formal care. In single-parent families, those with one child (78.9 percent) are more likely to use formal care than in families with siblings (58.8 percent). Although the gap narrows in two-parent families, those with one child (62.4 percent) remain more likely to use regular formal care than those with multiple children (53.9 percent).

**The presence of siblings reduces the likelihood of regular formal child care. In single parent families, those with one child (78.9%) are more likely to use formal care than in families with siblings (58.8%).**

**Regional Usage.** There are also regional differences in child care usage patterns across the four major Census regions of the United States. The highest share of children using regular nonparental care arrangements is found in the Northeast (64.4 percent) states. Slightly above average usage rates are found in the Midwest (61.9 percent) and South (59.4 percent) regions. The lowest overall usage rates are found in the West (51.7 percent).

Child care usage patterns also vary along with the type and size of community (by zip code) in which a child resides. Usage rates are above average among children in suburbs (60.7 percent) but below average among those living in towns and rural regions. Whereas overall usage is lower in rural areas, proximity to a larger region affects usage rates in rural zip codes, with above average usage rates in rural areas on the fringe (60.2 percent) of a larger region but rates far below average in distant (48.5 percent) and remote (55.3 percent) rural areas.

#### **Summary - Organized Child Care Usage Patterns**

Clear usage patterns for organized child care are visible in the ECPP profile in Figure 6. The survey results indicate that organized care is used for almost half of children under one year of age, with usage increasing steadily as children approach school age. Organized care is used more frequently by better-educated and higher-income parents who are expected to receive relatively greater economic returns from work. Hispanic parents tend to use organized care less frequently than other race categories. Families with all parents working, especially if employed full time, are the most frequent users of organized child care. The presence of siblings in a family reduces the use of formal care. Families in rural regions far from a larger region are the least likely to use organized child care services.



## Patterns in Child Care Usage Across the States

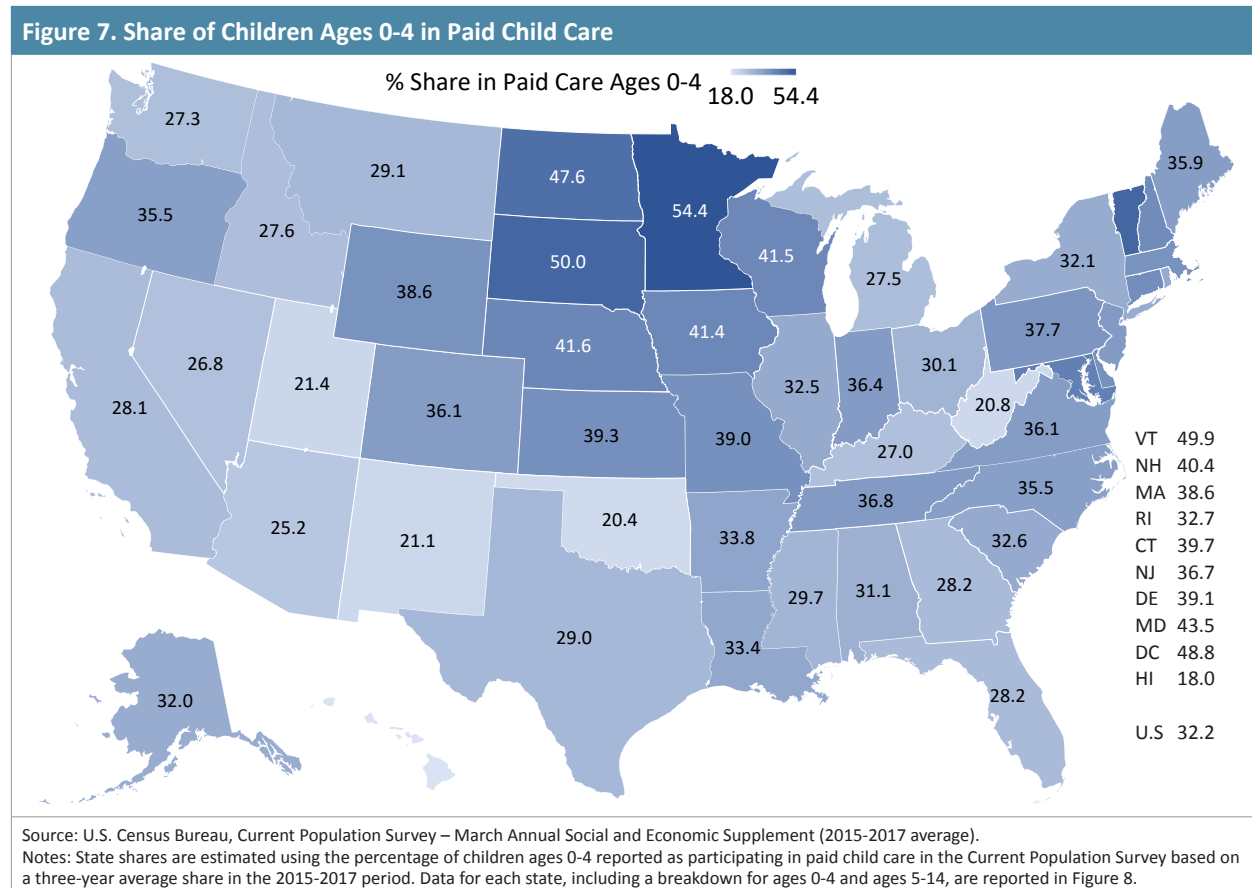
CPS survey data on the use of paid child care services provide additional insight into the propensity of families to use organized child care at the state level. Nationally, the CPS data suggest that 24.7 percent (15.1 million) of U.S. children ages 14 and under were in some form of paid care on average between 2015 and 2017. Share estimates are averaged over the 2015 to 2017 period in order to minimize any effects of short-run variability in both child care usage over the business cycle and state-level variability in the CPS sample. The share of children in paid care ranges from 14.1 percent in Hawaii to 39.6 percent in Vermont in the period.

The map in Figure 7 illustrates the state-level variation in the reported use of paid child care for children ages 4 and under (ranging from 18.0 percent in Hawaii to 54.4 percent in Minnesota) as well as distinct regional patterns. Regionally, usage of paid child care is highest in the upper Plains, New England, and portions of the Mid-Atlantic region. Usage is much less prevalent in the Mountain West, much of the Southwest, Southern Plains, the Appalachia region, much of the Southeast, California, and Hawaii.

Figure 8 details state-level estimates of the share of children ages 14 and under in paid child care, as well as a breakdown for ages 0 to 4 and ages 14 and under in each state. Across all ages, approximately two-thirds (34) of states have a share of children in paid care between 20 percent and 29 percent, a narrow range extending roughly 4.5 percentage points above and below the 24.7 percent national share. The share of children ages 4 and under in paid care rises to 32.2 percent (6.4 million), more than 10 percentage points above than the 21.0 percent share for children ages 5 to 14 (8.6 million).

Only six states have a share below 20 percent, while ten states and the District of Columbia have a share above 29 percent. The six states with the lowest rates of paid care include Hawaii (14.1 percent), West Virginia (15.6 percent), New Mexico (16.2 percent), Utah (16.2 percent), Oklahoma (17.2 percent), and Arizona (19.3 percent).

Parents in states with significantly higher shares of paid care use paid care at more than twice the rate of the lowest usage states. The highest overall usage rates are found in Vermont (39.6 percent), Minnesota (38.9 percent), North Dakota (37.7 percent), South Dakota (37.4 percent), the District of Columbia (36.0 percent), Nebraska (34.4 percent), Iowa (33.3 percent), Maryland



**Figure 8. Children Ages 14 and Under in Paid Child Care by State**

Region	Total Children of Child Care Age			Children in Paid Child Care			Share in Paid Child Care		
	Total	Ages 0-4	Ages 5-14	Total	Ages 0-4	Ages 5-14	Total	Ages 0-4	Ages 5-14
UNITED STATES	61,021,552	19,938,860	41,082,692	15,056,515	6,425,592	8,630,923	24.7%	32.2%	21.0%
Alabama	903,298	293,554	609,744	221,786	91,199	130,587	24.6%	31.1%	21.4%
Alaska	155,618	54,083	101,535	41,326	17,329	23,997	26.6%	32.0%	23.6%
Arizona	1,354,324	437,262	917,062	261,356	110,404	150,951	19.3%	25.2%	16.5%
Arkansas	585,736	191,435	394,301	137,721	64,659	73,062	23.5%	33.8%	18.5%
California	7,528,645	2,471,513	5,057,132	1,699,294	694,704	1,004,590	22.6%	28.1%	19.9%
Colorado	1,049,246	336,207	713,039	273,890	121,473	152,417	26.1%	36.1%	21.4%
Connecticut	602,794	183,321	419,473	171,713	72,797	98,915	28.5%	39.7%	23.6%
Delaware	169,267	54,992	114,275	45,068	21,492	23,576	26.6%	39.1%	20.6%
Dist. of Columbia	108,761	45,035	63,726	39,175	21,969	17,206	36.0%	48.8%	27.0%
Florida	3,470,863	1,138,095	2,332,768	789,124	321,397	467,726	22.7%	28.2%	20.1%
Georgia	2,076,045	660,313	1,415,732	447,723	186,194	261,529	21.6%	28.2%	18.5%
Hawaii	258,899	90,109	168,790	36,591	16,206	20,385	14.1%	18.0%	12.1%
Idaho	368,289	117,037	251,252	80,123	32,353	47,770	21.8%	27.6%	19.0%
Illinois	2,389,800	773,049	1,616,751	582,345	251,465	330,879	24.4%	32.5%	20.5%
Indiana	1,299,589	421,176	878,413	355,283	153,152	202,131	27.3%	36.4%	23.0%
Iowa	608,299	198,996	409,303	202,698	82,476	120,223	33.3%	41.4%	29.4%
Kansas	593,228	193,139	400,089	172,362	75,940	96,421	29.1%	39.3%	24.1%
Kentucky	838,293	276,883	561,410	170,152	74,890	95,261	20.3%	27.0%	17.0%
Louisiana	924,199	312,038	612,161	230,380	104,275	126,105	24.9%	33.4%	20.6%
Maine	206,402	64,502	141,900	54,715	23,175	31,540	26.5%	35.9%	22.2%
Maryland	1,116,908	366,385	750,523	364,055	159,299	204,756	32.6%	43.5%	27.3%
Massachusetts	1,121,237	360,588	760,649	330,514	139,216	191,298	29.5%	38.6%	25.1%
Michigan	1,783,444	573,282	1,210,162	391,645	157,726	233,920	22.0%	27.5%	19.3%
Minnesota	1,082,731	355,231	727,500	421,249	193,203	228,046	38.9%	54.4%	31.3%
Mississippi	590,257	187,177	403,080	126,532	55,563	70,969	21.4%	29.7%	17.6%
Missouri	1,146,250	374,479	771,771	331,127	145,933	185,194	28.9%	39.0%	24.0%
Montana	191,072	63,291	127,781	47,534	18,398	29,136	24.9%	29.1%	22.8%
Nebraska	398,315	133,061	265,254	137,174	55,298	81,876	34.4%	41.6%	30.9%
Nevada	570,870	185,837	385,033	118,110	49,748	68,363	20.7%	26.8%	17.8%
New Hampshire	210,003	64,481	145,522	66,358	26,035	40,323	31.6%	40.4%	27.7%
New Jersey	1,628,904	521,718	1,107,186	432,847	191,568	241,279	26.6%	36.7%	21.8%
New Mexico	404,457	128,145	276,312	65,653	27,080	38,573	16.2%	21.1%	14.0%
New York	3,440,745	1,164,406	2,276,339	860,353	374,083	486,270	25.0%	32.1%	21.4%
North Carolina	1,901,425	609,713	1,291,712	480,807	216,306	264,501	25.3%	35.5%	20.5%
North Dakota	149,953	54,043	95,910	56,566	25,723	30,842	37.7%	47.6%	32.2%
Ohio	2,145,937	698,780	1,447,157	533,912	210,403	323,509	24.9%	30.1%	22.4%
Oklahoma	800,624	263,740	536,884	137,890	53,846	84,045	17.2%	20.4%	15.7%
Oregon	725,223	235,968	489,255	193,458	83,819	109,639	26.7%	35.5%	22.4%
Pennsylvania	2,192,936	708,829	1,484,107	635,691	267,229	368,463	29.0%	37.7%	24.8%
Rhode Island	169,742	54,761	114,981	42,759	17,897	24,862	25.2%	32.7%	21.6%
South Carolina	915,372	293,653	621,719	231,656	95,616	136,040	25.3%	32.6%	21.9%
South Dakota	181,434	61,759	119,675	67,935	30,879	37,056	37.4%	50.0%	31.0%
Tennessee	1,248,141	408,644	839,497	326,650	150,203	176,447	26.2%	36.8%	21.0%
Texas	6,138,042	2,031,625	4,106,417	1,315,907	589,090	726,817	21.4%	29.0%	17.7%
Utah	776,531	255,200	521,331	125,685	54,689	70,995	16.2%	21.4%	13.6%
Vermont	95,508	30,035	65,473	37,841	14,984	22,856	39.6%	49.9%	34.9%
Virginia	1,551,365	511,674	1,039,691	438,669	184,930	253,739	28.3%	36.1%	24.4%
Washington	1,374,816	458,213	916,603	331,711	125,134	206,577	24.1%	27.3%	22.5%
West Virginia	305,206	98,484	206,722	47,624	20,436	27,188	15.6%	20.8%	13.2%
Wisconsin	1,057,846	335,888	721,958	315,601	139,402	176,199	29.8%	41.5%	24.4%
Wyoming	114,663	37,031	77,632	30,180	14,305	15,875	26.3%	38.6%	20.4%

Source: U.S. Census Bureau (2017 population estimates), Current Population Survey – March Annual Social and Economic Supplement (2015-2017).

Notes: State shares are estimated using the percentage of children ages 0-4 and 5-14 reported as participating in paid child care in the Current Population Survey based on a three-year average share in the 2015-2017 period.

(32.6 percent), New Hampshire (31.6 percent), Wisconsin (29.8 percent), and Massachusetts (29.5 percent).

Figure 8 also details state-level usage rates for paid care for both preschool children under the age of 5 and school-aged children ages 5 to 14.

Usage rates for preschool children ages 4 and under are higher and more variable across the states. The national share of preschool children in paid care is 32.2 percent, with state rates ranging from a low of 18.0 percent in Hawaii (only about one in 5) to a high of 54.4 percent in Minnesota (one of every two).<sup>13</sup>

For the 21.0 percent of school-aged children (ages 5 to 14) in paid care nationally in the CPS survey, usage rates fall within a much narrower range, from a low of 12.1 percent in Hawaii to a high of 34.9 percent in Vermont.

States with the highest overall share of children in paid care typically have uniformly high shares of both preschoolers and school-aged children in paid care. The ten states with the highest overall share of children in paid care have nearly half (44.9 percent) of preschoolers and almost one-third (29.4 percent) of school-age children, respectively, in paid care.

#### Labor Force Participation and Paid Child Care

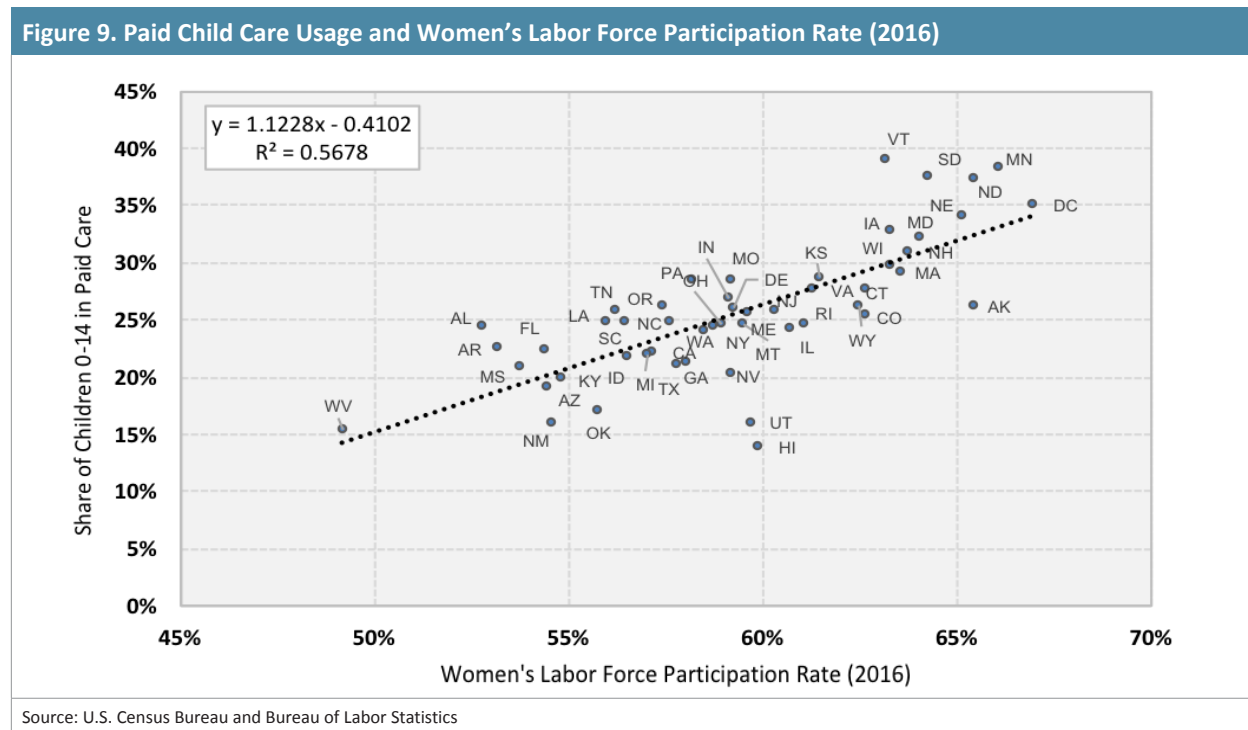
Much as economic, demographic, and cultural factors explain variation in the use of organized child care at the household level, many of the same factors underlie variation in the use of organized child care at the state level.

Perhaps the most important factor is the labor force participation rate of women. Figure 9 illustrates the state-level link between the share of women in the workforce and the share of school-aged children in paid child care in 2016. States with a greater share of women in the labor force consistently have a higher share of children in paid care.

The use of organized child care tends to rise roughly proportionately with increased employment. The linear best-fit line in Figure 9 suggests that a 1 percent higher labor force participation rate is accompanied by a 1.228 percent higher share of children in paid child care on average across the states.

All eight states in Figure 9 with a share of children in paid care above 30 percent (Vermont, Minnesota, South Dakota, North Dakota, Nebraska, Iowa, Maryland, and New Hampshire) and the District of Columbia uniformly rank among the top ten states based on the labor force participation rate of women. Conversely, traditional low-participation rate states such as West Virginia, Arkansas, Arizona, Mississippi, New Mexico, Oklahoma, and Utah are clustered among the states with the smallest share of children in organized care.

Other economic and demographic factors beyond labor force participation undoubtedly influence the use of paid child care at the state level. These include the cost of care, overall cost of living, access to financial assistance, and the level of income in each state. These factors are discussed in the next section of the report.



### III. Demand for Organized Child Care

The organized child care sector continues to evolve to meet the demands of both working parents and employers in the United States. Demographic trends and the cost of care remain key influences shaping overall child care usage. The cost of organized child care remains a significant financial hurdle, particularly for low-income and low-skilled workers. Cost varies widely across the states and is highly dependent upon the age of the child, the type of provider chosen, licensing requirements, and the overall cost of living. Paid child care can also consume a significant fraction of household income and is as costly as college tuition for families in many states. Federal and state efforts to help offset the cost of child care continue to play a major role in helping low-income working parents enter and remain in the labor force.

#### Key Trends Driving the Overall Demand for Child Care

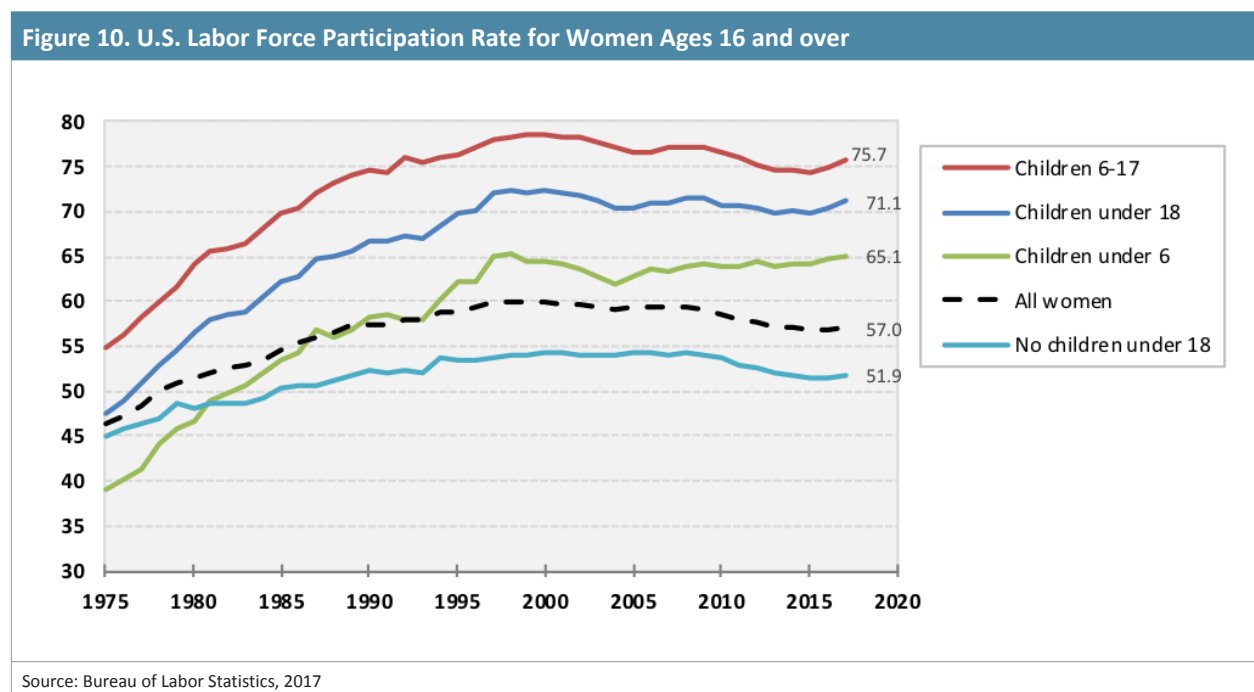
##### Labor Force Participation Rate of Women

The expansion of the organized child care industry the past several decades closely tracks the labor force participation rate of women in the period. Participation rates for women ages 16 and over increased steadily from just above 30 percent following the end of World War II to a recent peak of 60.0 percent in 1999 (see Figure 10). For women with children under 18, the participation rate increased from 47 percent to more than 70 percent in the period.

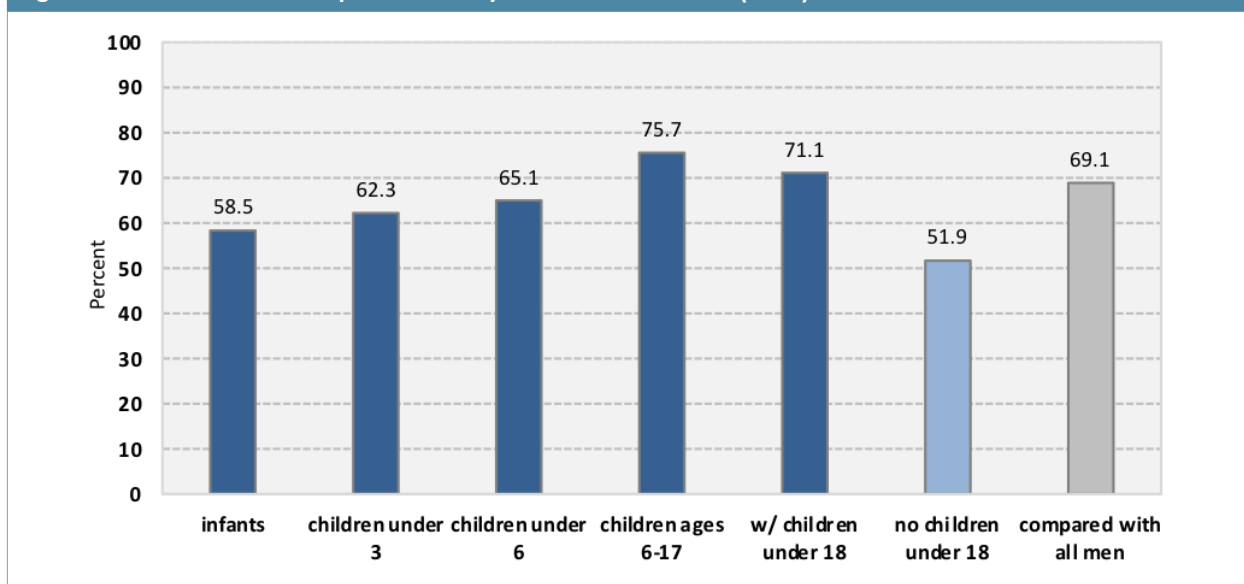
The participation rate for women has stabilized since 1999 and declined slightly in recent years along with overall U.S. participation rates. Between 1999 and 2017, the share of women participating in the labor force declined slightly by about 3 percentage points to its current rate of 57.0 percent. Much of the stronger participation among younger women is traced to mothers with children at home. In contrast to all other groups of women in Figure 10, participation rates for mothers with children under the age of 6 increased steadily between 2005 and 2017.

The need for child care follows a clear pattern over a mother’s work life and is closely related to the age of the youngest child at home. Figure 11 details the variation in the current labor force participation rate for women based upon the presence of children in the household. Overall, the participation rate is significantly higher (71.1 percent) for mothers with children under 18 than for women with no children under 18 at home (51.9 percent). The participation rate for mothers with children under 18 is also slightly higher than the overall participation rate for men (69.1 percent), with the spread widening in recent years.

The likelihood that a mother participates in the labor force increases along with the age of the youngest child. Mothers with an infant are the least likely (58.5 percent) to participate in the labor force, although more than half are active participants. The rate rises to 62.3 percent for



**Figure 11. Labor Force Participation Rate by Presence of Children (2017)**



Source: Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey.

mothers with children under 3 years of age and to 65.1 percent for those with children under 6 years of age. The participation rate peaks at 75.7 percent among mothers with school-aged children (ages 6 to 17), more than 6 percentage points above the overall participation rate for men and more than 10 percentage points above the rate for mothers with children under 6.

The recent stabilization in the share of women entering the labor force could be viewed as an economic development concern, as it indicates a limit on the number of new entrants into the labor force. This has heightened the focus on access to affordable child care for women of working age who might otherwise opt out of the labor force.

### Single-Parent Households

Along with shifts in the labor force participation rate of women, other demographic trends have redirected child care policy efforts toward assisting parents who are living under much different marital and family arrangements than in years past. One of these demographic challenges is the far smaller share of children in the United States who are living with two married parents (see Figure 12).

Across all living arrangements, only 68.9 percent of children under age 18 lived with two married parents in 2017. This share is down steadily from about 88 percent in 1960 when estimates were first reported.

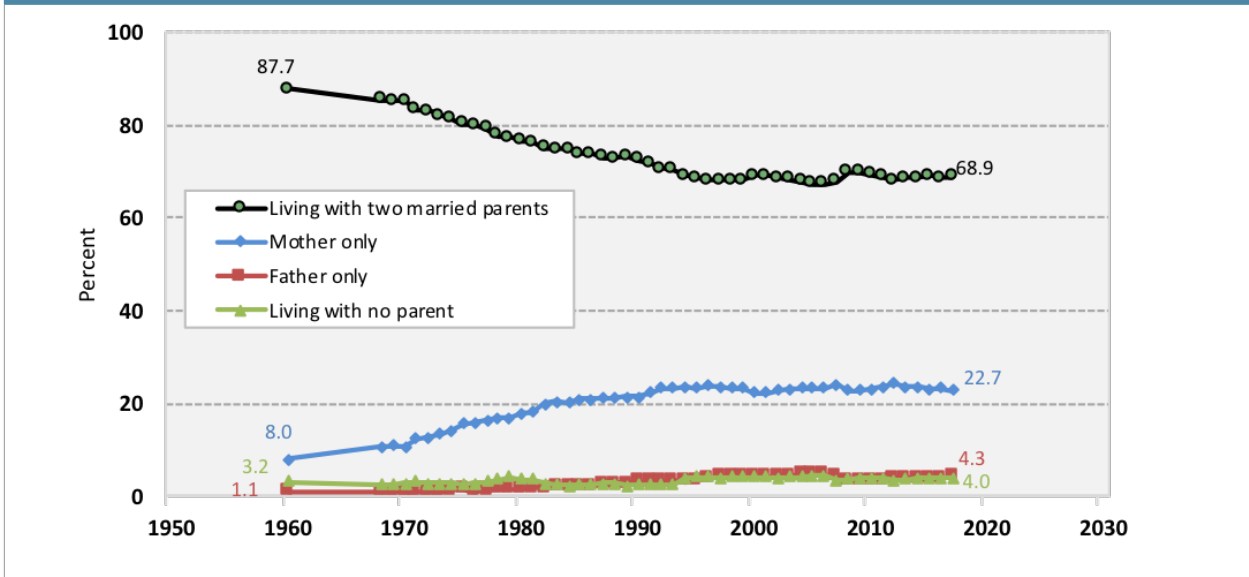
As a result, more than one in four (27.0 percent) children in the United States live in a household with only one parent present. The share of children living with their mother has remained relatively stable at slightly more than 20 percent the past few decades and is currently 22.7 percent. Only 4.3 percent of children living with one parent live with their father, a share that has similarly remained stable for many years.

### Labor Force Participation and Unemployment

Marital status and the presence of children in the household are closely tied to both the likelihood a parent is in the labor force or is unemployed. In 2017, single mothers with children under 18 were far more likely to participate in the labor force (73.2 percent) than married mothers (67.3 percent) and more likely to use organized child care.<sup>14</sup>

While participation rates are roughly equal for single and married mothers with infants, single mothers begin to enter the labor force at a much higher rate as the youngest child in the household reaches 1 year of age. For mothers with a 1-year-old, the participation rate is 69.3 percent for single mothers versus 60.1 percent for married mothers in 2017.<sup>15</sup> The gap remains large for 2-year-olds, with 73.6 percent of single mothers participating in the labor force versus only 61.9 percent of married mothers. Labor force outcomes are also much less favorable for single mothers. In 2017, single mothers with young children under 3 were unemployed at a rate more than three times the rate of married mothers with children under 3 (9.9 percent versus 2.6 percent).

**Figure 12. Living Arrangements of Children Under 18**



Source: Bureau of Labor Statistics  
 Notes: Totals do not include children living in group quarters or other institutional arrangements.

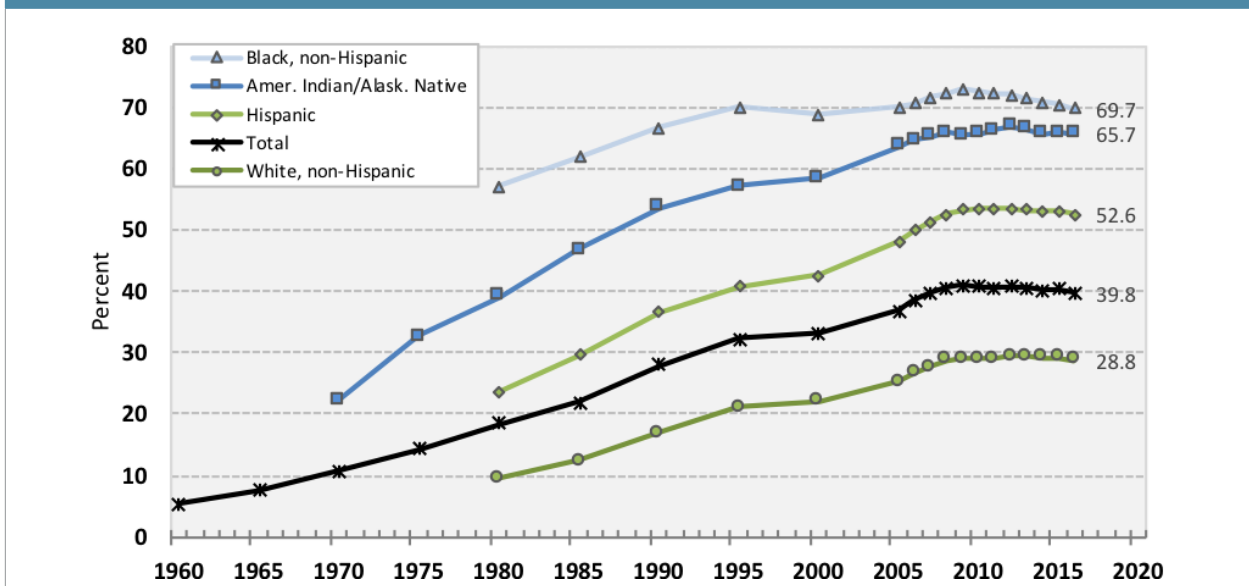
**Births to Unmarried Mothers**

A related demographic trend influencing child care policy is the increased number of children born to unmarried women. The share of total births to unmarried mothers has leveled off at about 40 percent since 2009 but remains double the level from the early 1980s (see Figure 13).

All races have seen a sharp rise in the share of births to unmarried women. In 2016, the share reached 28.8

percent for white (non-Hispanic) mothers; 52.6 percent for Hispanic mothers; 65.7 percent for American Indian and Alaskan Native mothers; and 69.7 percent for black (non-Hispanic) mothers. Although roughly half of all unmarried births are to cohabitating parents, children born to unmarried mothers are more likely to live in poverty and have lower occupational status and income as young adults relative to children born to married mothers.<sup>16</sup>

**Figure 13. Percentage of Births to Unmarried Women**



Source: Bureau of Labor Statistics, 2016

## Cost of Child Care in the U.S.

The cost of organized child care presents a significant financial hurdle for many working parents with children. The inability to afford paid child care can keep a parent out of the labor force, in part or in full, if other informal care arrangements are not readily available. A range of empirical estimates suggest that a 10 percent increase in the cost of child care will reduce the employment of single mothers by 3 to 4 percent and married women by 5 to 6 percent.<sup>17</sup>

### Cost by Type of Care

The cost of organized child care varies widely based upon the age of the child and the type of child care provider chosen. Figure 14 summarizes the annual cost of child care in 2017 based on the ongoing state-level rate survey administered by Child Care Aware of America. Three common child care arrangements by age of the child are included: infant care, 4-year-old care, and before- or after-school care for a school-aged child. The rates describe the annual cost of full-time care at both child care centers and family child care homes for each of the three child care arrangements.

The median cost of care across the states is generally much higher for younger children than for older children, and higher in child care centers than in family child

care homes. For infants, the highest-cost category of care, the median cost of annual care is approximately \$7,900 in a family child care home and \$10,750 in a child care center. Care for 4-year-olds ranges from \$7,150 per year in a family child care home to more than \$8,600 in a child care center. The annual cost for school-aged children is the lowest and least variable for each provider type, ranging from just less than \$4,000 in a family child care home to \$4,200 in a center.

Overall, care for infants is typically 5 to 15 percent more than for 4-year-olds, and 50 to 150 percent more than care for school-aged children. Equivalent care in a child care center costs 15 to 30 percent more than in a family child care home.

### State-Level Cost of Care

There is substantial variation in the cost of child care across the states for a given care arrangement. Figure 15 details state-level child care rates for the same set of national child care arrangements shown in Figure 14.

Consistent with regional cost of living patterns, the highest overall costs of care are generally found in the New England, Great Lakes, and Pacific Coast states, plus Hawaii and the District of Columbia. The lowest costs are generally found in the Deep South, the Southwest, and Plains states.

The cost of infant care is the most variable across the states. In child care centers, the annual cost of infant care ranges from a low of \$5,307 in Mississippi to a

**Infant center-based care exceeds the cost of college tuition in 28 states and the District of Columbia.**

The cost of organized child care presents a financial challenge for many working parents with young children.

**The inability to afford paid child care can keep a parent out of the labor force, in part or in full, if other informal care arrangements are not available.**

**Figure 14. Annual Cost of Full-Time Child Care by Provider Type and Child's Age**

In A Regular Arrangement		
ANNUAL FEES FOR FULL-TIME CARE IN A CHILD CARE CENTER	Median	50-State Range
Infant	\$10,759	\$5,307-23,666
4-year-old child	8,672	4,670-18,657
School-age child (before-/after-school care)	4,239	1,987-14,245
ANNUAL FEES FOR FULL-TIME CARE IN A FAMILY CHILD CARE HOME	Median	50-State Range
Infant	\$7,887	\$3,570-16,737
4-year-old child	7,148	2,813-14,293
School-age child (before-/after-school care)	3,947	896-8,844

Source: Child Care Aware of America. *The U.S. and the High Cost of Child Care*. (2018)

Notes: Annual data for 2017. The median is determined using the reported cost for each of the fifty states and Washington D.C.

**Figure 15. Annual Cost of Child Care by Provider and Child's Age**

State	Child care center			Family child care home		
	Infant	4-year-oldchild	School-age child (before-/after- school care)	Infant	4-year-oldchild	School-age child (before-/after- school care)
UNITED STATES	\$10,759	\$8,672	\$4,239	\$7,887	\$7,148	\$3,947
Alabama	5,858	5,061	5,516	4,989	5,128	4,948
Alaska	11,832	9,847	6,934	8,917	7,946	5,217
Arizona	10,687	8,344	5,162	7,141	6,789	4,884
Arkansas	6,726	5,348	2,362	5,364	4,944	2,364
California	16,542	11,202	3,736	10,609	9,984	3,845
Colorado	14,960	12,095	NR	10,522	9,953	NR
Connecticut	15,132	12,428	3,276	10,556	10,088	3,588
Delaware	10,759	8,665	3,617	7,716	6,880	2,745
Dist. of Columbia*	23,666	18,657	14,245	16,737	14,293	8,844
Florida	9,018	7,109	3,345	7,779	6,592	3,361
Georgia	8,327	7,132	2,942	6,454	5,848	NR
Hawaii	13,404	8,724	NR	8,436	8,136	NR
Idaho	7,296	6,300	4,239	6,264	5,676	4,041
Illinois	13,474	10,125	6,330	8,442	7,802	5,117
Indiana	12,312	9,330	4,378	6,878	6,089	3,447
Iowa	10,131	8,428	3,011	7,070	7,800	2,369
Kansas	10,955	8,589	4,875	6,749	6,154	4,368
Kentucky	6,258	6,258	5,524	NR	NR	NR
Louisiana	7,540	6,742	2,925	6,500	5,850	NR
Maine*	9,224	8,095	3,588	8,045	7,395	3,392
Maryland	14,970	10,010	4,437	10,009	8,143	3,716
Massachusetts	20,415	14,736	5,898	12,750	12,066	5,192
Michigan	10,603	8,678	4,234	7,387	6,976	4,595
Minnesota	15,704	11,960	NR	8,424	7,644	NR
Mississippi*	5,307	4,670	1,987	3,570	2,813	896
Missouri	9,802	6,847	NR	5,708	4,940	NR
Montana	NR	NR	NR	NR	NR	NR
Nebraska	12,272	11,148	NR	12,480	12,480	NR
Nevada	11,137	8,835	5,275	8,916	8,188	4,737
New Hampshire	12,487	10,102	3,588	9,336	8,813	3,365
New Jersey*	12,679	10,597	5,676	9,544	8,689	4,956
New Mexico	8,412	7,428	NR	6,684	6,348	NR
New York	15,028	12,064	NR	10,972	10,140	NR
North Carolina	9,254	7,920	3,275	7,412	6,548	2,994
North Dakota	8,875	8,025	NR	7,283	6,994	NR
Ohio	9,466	7,707	4,168	7,467	6,343	3,434
Oklahoma	8,372	6,448	4,160	6,916	6,084	4,212
Oregon	13,292	9,822	4,032	8,990	8,228	4,626
Pennsylvania	11,560	9,540	NR	8,712	7,148	NR
Rhode Island*	13,370	10,433	5,584	10,433	9,609	4,668
South Carolina*	6,840	5,863	2,399	4,797	4,531	1,999
South Dakota	NR	6,198	4,586	NR	5,242	3,947
Tennessee	8,524	7,290	2,487	6,183	5,715	2,542
Texas*	9,102	6,894	3,342	6,994	5,404	2,750
Utah	9,708	7,464	NR	7,344	6,480	NR
Vermont	12,507	11,438	4,324	8,694	8,264	3,711
Virginia	13,728	10,608	4,875	10,140	8,684	3,432
Washington	14,208	10,788	4,599	10,812	9,300	4,140
West Virginia*	8,528	7,462	4,997	6,663	5,863	3,998
Wisconsin	12,268	9,954	3,720	9,645	8,611	4,482
Wyoming	10,394	8,795	7,017	7,995	7,995	7,995

Source: Child Care Aware of America. The U.S. and the High Cost of Child Care. 2018 Survey.

Notes: Annual data for 2017 care. Costs represent the average median costs reported for each child care arrangement. NR: Data are not reported for some categories of care in some states.

\* State did not report costs on the 2018 survey; data reported from the previous year has been adjusted for inflation.



high of \$20,415 in Massachusetts, a nearly four-fold difference in cost. In family child care homes, the cost of infant care is lowest in Mississippi at \$3,570 per year but is three-fold costlier in Massachusetts at \$12,750 per year. The reported cost of infant care is even higher in the District of Columbia, at \$23,666 in a child care center and \$16,737 in a family child care home.

For 4-year-olds, the annual cost of care in a child care center ranges from a low of \$4,670 in Mississippi to a high of \$14,736 in Massachusetts. Care for a 4-year-old in a family child care home costs \$2,813 in South Carolina versus \$12,480 in Nebraska. In the District of Columbia, four-year-old care costs \$18,657 in a child care center and \$14,293 in a family child care home.

Costs are significantly lower and somewhat less variable across the states for school-aged children. For those in child care centers, the lowest annual cost is \$1,987 in Louisiana versus a high of \$7,017 in Hawaii (\$14,245 in the District of Columbia). The annual cost of care for school-aged children in a family child care home falls within a narrower range, from a low of \$896 in Mississippi to a high of \$7,995 in Wyoming (\$8,844 in the District of Columbia).

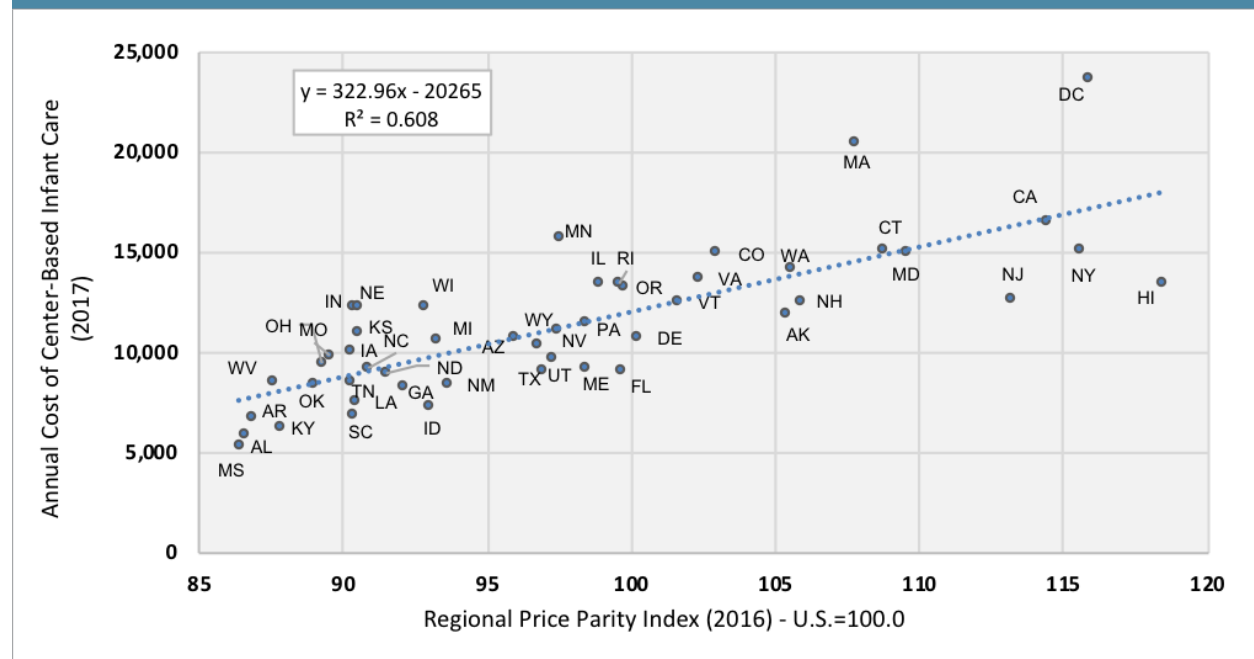
### Cost of Living and Cost of Care

For most child care arrangements, the variation in the cost of care at the state level is highly correlated with a state's overall cost of living.<sup>18</sup> Figure 16 illustrates the relationship between the cost of center-based infant care (the costliest form of care) and the cost of living at the state level. Cost of living is measured using state-level regional price parity (RPP) indexes produced by the Bureau of Economic Analysis.<sup>19</sup> A state's RPP index measures the overall cost of living in the state relative to the U.S. price level, whereby a state with an RPP value of 110.0 has a price level 10 percent higher than the nation.

As expected, most of the traditional high cost of living regions of the country (e.g., the District of Columbia, New York, New Jersey, Hawaii, California, Connecticut, Massachusetts, and Maryland) tend to have the highest overall costs for center-based infant care. Similarly, most of the traditional low cost of living states (e.g., Mississippi, Arkansas, Alabama, South Dakota, Kentucky, Missouri, and Oklahoma) have much lower costs for center-based infant care.

The linear best-fit line in Figure 16 suggests child care costs tend to rise more than proportionately with the

Figure 16. Cost of Center-Based Infant Child Care vs. Cost-of-Living



Source: Bureau of Economic Analysis: Price Parity Index (2016), Child Care Aware of America, and RegionTrack

**The cost of care varies widely across the states**

and is highly dependent on age of the child, type of provider, licensing requirements, and overall cost of living.

cost of living across the states. A 1 percentage point rise in the overall price level of a state relative to the nation is associated with an estimated 4.7 percent (\$322.96) higher annual cost of center-based infant care. Given a 10 to 15 percent higher average cost of living in the highest-cost states, a parent in a typical high-cost state could expect to pay a premium of 45–70 percent

(\$4,850–7,550) for center-based infant care relative to states close to the national average cost of living. A similar-size percentage reduction in cost would be expected for parents in the lowest-cost states where the cost of living is generally 10 to 15 percent below the national average.

The median annual cost of **center-based care**

for infants is **\$10,750**

and for 4 year-old children is **\$8,600.**

The median annual cost of **home-based care**

is not much less: **\$7,900**

for infants and **\$7,150** for 4 year-old children.

Many factors other than cost of living undoubtedly underlie state-level differences in the cost of child care, including the quality of care and licensing regulations. For example, the cost of high-quality care is often related to the quality of the child care workforce, particularly classroom teachers. It costs more to hire and retain staff who have completed higher education degrees such as an associate's or bachelor's degree in early childhood

education compared to the lower cost of hiring staff who have completed high school but no additional college coursework. Paying higher wages to staff results in higher operating costs and higher cost of care. In addition, regulations vary widely across the states regarding staff-child ratios and safety standards, which also affect the cost of operating a child care program.

**Cost as a Share of Household Income**

The cost of full-time care can absorb a significant fraction of total household income. For families with multiple children in organized care, total child care costs can be a significantly higher share of household income. The cost of care can be particularly burdensome for low-income working parents in states where household income does not fully compensate for a higher cost of living.

Figure 17 compares the cost of both center-based infant care (traditionally the most expensive form of care) and family child care home-based care for a 4-year-old (one of the lowest-cost forms of care) to median household income at the state level. For any individual household, the share of income devoted to child care is determined largely by the age of the child and the state of residence.

For center-based infant care, the cost for a single child is approximately 17.8 percent of median household income at the national level. Again, there is tremendous variation in this share across the states. Center-based infant care costs only 12.2 percent of median household income in Mississippi and Alabama but exceeds 20 percent of median income in twenty-one states and the District of Columbia.

Care for a 4-year-old child in a family child care home consumes 11.8 percent of median household income nationally. The share is less than 10 percent in five states: Mississippi, South Carolina, South Dakota, Texas, and Utah – and exceeds 15 percent in four states: Massachusetts, Nebraska, New York, Rhode Island, and the District of Columbia.

**Center-based infant care costs**

**12.2%**

of median household income in Mississippi and Alabama and exceeds

**20%**

of median income in 21 states and the District of Columbia.

**Figure 17. Comparative Cost of Child Care (2017)**

Region	Median Household Income	Cost of Child Care		Share of Median Income		Child Care Cost Relative to College Tuition		
		Center-based infant care	Family child care home 4-year-old	Center-based infant care	Family child care home 4-year-old	Average annual tuition/fees for public 4-year college (in-state)	Center-based infant care	Family child care home 4-year-old
UNITED STATES	\$60,336	\$10,759	\$7,148	17.8%	11.8%	\$9,970	107.9%	71.7%
Alabama	48,123	5,858	5,128	12.2%	10.7%	10,530	55.6%	48.7%
Alaska	73,181	11,832	7,946	16.2%	10.9%	7,438	159.1%	106.8%
Arizona	56,581	10,687	6,789	18.9%	12.0%	11,218	95.3%	60.5%
Arkansas	45,869	6,726	4,944	14.7%	10.8%	8,553	78.6%	57.8%
California	71,805	16,542	9,984	23.0%	13.9%	9,680	170.9%	103.1%
Colorado	69,117	14,960	9,953	21.6%	14.4%	10,797	138.6%	92.2%
Connecticut	74,168	15,132	10,088	20.4%	13.6%	12,392	122.1%	81.4%
Delaware	62,852	10,759	6,880	17.1%	10.9%	12,267	87.7%	56.1%
Dist. of Columbia	82,372	23,666	14,293	28.7%	17.4%	8,060	293.6%	177.3%
Florida	52,594	9,018	6,592	17.1%	12.5%	6,363	141.7%	103.6%
Georgia	56,183	8,327	5,848	14.8%	10.4%	8,573	97.1%	68.2%
Hawaii	77,765	13,404	8,136	17.2%	10.5%	10,658	125.8%	76.3%
Idaho	52,225	7,296	5,676	14.0%	10.9%	7,250	100.6%	78.3%
Illinois	62,992	13,474	7,802	21.4%	12.4%	13,621	98.9%	57.3%
Indiana	54,181	12,312	6,089	22.7%	11.2%	9,361	131.5%	65.0%
Iowa	58,570	10,131	7,800	17.3%	13.3%	8,759	115.7%	89.1%
Kansas	56,422	10,955	6,154	19.4%	10.9%	9,227	118.7%	66.7%
Kentucky	48,375	6,258	NR	12.9%	NR	10,302	60.7%	NR
Louisiana	46,145	7,540	5,850	16.3%	12.7%	9,302	81.1%	62.9%
Maine	56,277	9,224	7,395	16.4%	13.1%	9,965	92.6%	74.2%
Maryland	80,776	14,970	8,143	18.5%	10.1%	9,575	156.3%	85.0%
Massachusetts	77,385	20,415	12,066	26.4%	15.6%	12,732	160.3%	94.8%
Michigan	54,909	10,603	6,976	19.3%	12.7%	12,935	82.0%	53.9%
Minnesota	68,388	15,704	7,644	23.0%	11.2%	11,302	139.0%	67.6%
Mississippi	43,529	5,307	2,813	12.2%	6.5%	7,988	66.4%	35.2%
Missouri	53,578	9,802	4,940	18.3%	9.2%	8,875	110.4%	55.7%
Montana	53,386	NR	NR	NR	NR	6,907	NR	NR
Nebraska	59,970	12,272	12,480	20.5%	20.8%	8,269	148.4%	150.9%
Nevada	58,003	11,137	8,188	19.2%	14.1%	7,274	153.1%	112.6%
New Hampshire	73,381	12,487	8,813	17.0%	12.0%	16,073	77.7%	54.8%
New Jersey	80,088	12,679	8,689	15.8%	10.8%	13,868	91.4%	62.7%
New Mexico	46,744	8,412	6,348	18.0%	13.6%	6,921	121.5%	91.7%
New York	64,894	15,028	10,140	23.2%	15.6%	7,940	189.3%	127.7%
North Carolina	52,752	9,254	6,548	17.5%	12.4%	7,385	125.3%	88.7%
North Dakota	61,843	8,875	6,994	14.4%	11.3%	8,197	108.3%	85.3%
Ohio	54,021	9,466	6,343	17.5%	11.7%	10,505	90.1%	60.4%
Oklahoma	50,051	8,372	6,084	16.7%	12.2%	8,460	99.0%	71.9%
Oregon	60,212	13,292	8,228	22.1%	13.7%	10,357	128.3%	79.4%
Pennsylvania	59,195	11,560	7,148	19.5%	12.1%	14,437	80.1%	49.5%
Rhode Island	63,870	13,370	9,609	20.9%	15.0%	12,226	109.4%	78.6%
South Carolina	50,570	6,840	4,531	13.5%	9.0%	12,615	54.2%	35.9%
South Dakota	56,521	NR	5,242	NR	9.3%	8,446		62.1%
Tennessee	51,340	8,524	5,715	16.6%	11.1%	9,789	87.1%	58.4%
Texas	59,206	9,102	5,404	15.4%	9.1%	9,836	92.5%	54.9%
Utah	68,358	9,708	6,480	14.2%	9.5%	6,788	143.0%	95.5%
Vermont	57,513	12,507	8,264	21.7%	14.4%	16,043	78.0%	51.5%
Virginia	71,535	13,728	8,684	19.2%	12.1%	12,820	107.1%	67.7%
Washington	70,979	14,208	9,300	20.0%	13.1%	9,480	149.9%	98.1%
West Virginia	43,469	8,528	5,863	19.6%	13.5%	7,887	108.1%	74.3%
Wisconsin	59,305	12,268	8,611	20.7%	14.5%	8,962	136.9%	96.1%
Wyoming	60,434	10,394	7,995	17.2%	13.2%	5,217	199.2%	153.2%

Source: Census Bureau (2017 ACS 1-yr estimate); College Board 2017-2018 Academic Year; and Child Care Aware of America 2017 child care rates.  
 Notes: NR: Not reported. Refer to the notes in Figure 15 for additional information on missing values.

### Relative Cost: Child Care vs. Higher Education

Figure 17 provides a comparison of the cost of child care center-based infant care and family child care home-based care for a 4-year-old to the average annual in-state tuition and fees at a four-year public college in each state. Nationally, the cost of center-based infant care is 107.9 percent of the average annual cost of attending a four-year public college. The cost of center-based infant care currently equals or exceeds the cost of a public college in 28 states and the District of Columbia. Center-based infant care is at least 50 percent higher than the cost of a public college in the District of Columbia (293.6 percent), Wyoming (199.2 percent), New York (189.3 percent), California (170.9 percent), Massachusetts (160.3 percent), Alaska (159.1 percent), Maryland (156.3 percent), and Nevada (153.1 percent).

Even for lower-cost 4-year-old care in a family child care home setting, the cost of care nationally is 72 percent of the average cost of a year of college. The cost of after-school care exceeds 100 percent of college costs in the District of Columbia (177.3 percent), Wyoming (153.2 percent), Nebraska (150.9 percent), New York (127.7 percent), Nevada (112.6 percent), Alaska (106.8 percent), Florida (103.6 percent), and California (103.1 percent). The cost exceeds 50 percent of college costs in all states except Mississippi (35.2 percent), South Carolina (35.9 percent), Alabama (48.7 percent), and Pennsylvania (49.5 percent). In South Carolina and Pennsylvania, the low shares reflect relatively high college costs rather than low child care costs.

### Assisting with the High Cost of Child Care

Federal and state policymakers have long recognized the cost burden of paid child care and have sought ways to make child care more accessible for working parents. As a result, funding for organized child care has evolved into a combination of direct payments by families supplemented by federal and state subsidies and tax credits. Federal funding administered through cooperative state programs provides the bulk of the funding, while some states provide state child care tax credits in addition to federal credits.

#### Federal/State Child Care Funding

Significant federal funding is provided to the states to administer child care assistance programs. The underlying goal of these programs is to offset the cost of child care services in order to help low-income parents enter the labor force or seek job training and/or education.

Figure 18 summarizes federal and state spending on child care assistance programs in the most recently available fiscal year.<sup>20</sup> Assistance totaled \$13.9 billion, with federal sources providing \$9.5 billion (68 percent) and states contributing the remaining \$4.4 billion (32 percent). For perspective, this funding is equivalent to 29.5 percent of the \$47.2 billion in total revenue reported by the organized U.S. child care sector in 2016.

**Figure 18. Federal and State Child Care Funding**

Federal/State Program <sup>21</sup>	Source	Latest Fiscal Year	Funding Amount
CCDF Mandatory, Matching, and Discretionary	Federal	2016	\$6,450,579,827
CCDF Matching State Share and Maintenance of Effort (MOE)	State	2016	2,163,912,058
TANF Transfer to CCDF	Federal	2017	1,288,451,232
Federal TANF Expenditures	Federal	2017	1,464,162,869
State TANF MOE Expenditures	State	2017	2,274,202,833
Social Services Block Grant (SSBG) – Child Care*	Federal	2014	299,759,015
<b>Sub-Total Federal Funding</b>			<b>9,502,952,943</b>
<b>Sub-Total State Funding</b>			<b>4,438,114,891</b>
<b>TOTAL FEDERAL/STATE FUNDING</b>			<b>\$13,941,067,834</b>

Source: U.S. Health and Human Services – Administration for Children and Families  
Notes: CCDF is the Child Care and Development Fund and TANF is the Temporary Assistance for Needy Families program. Both CCDF and TANF are operated by the U.S. Department of Health and Human Services - Administration for Children and Families. All categories reflect direct spending on child care services.

The bulk of federally funded child care assistance is provided through two major programs operated by the U.S. Department of Health and Human Services: the Child Care and Development Fund (CCDF) and the Temporary Assistance for Needy Families (TANF) program. CCDF funding is used primarily to provide subsidies to eligible low-income families who need child care due to work, work-related training, and/or attending school. TANF provides time-limited assistance for needy families to acquire training leading to employment, as well as child care assistance for qualified families with children. A third minor source of federally funded child care assistance is the Social Services Block Grant (SSBG) program, also administered by the U.S. Department of Health and Human Services. SSBG provides a range of assistance to needy families, including child care services.<sup>22</sup>

States become eligible to receive much of the federal funding by making matching current year expenditures and maintaining state spending levels from a prior year (“maintenance of effort”). Under CCDF, most of the funding allocated to states is used to provide direct assistance to families, while a small portion of the aid supports child care quality initiatives. Funding for TANF and SSBG is allocated to the states for a wide array of uses (including child care) to assist low-income families.<sup>23</sup>

An estimated 823,600 families with 1,370,700 children received direct child care assistance through CCDF in FY2016.<sup>24</sup> Thirteen percent of families receiving CCDF assistance reported receiving TANF assistance as well.<sup>25</sup>

While aggregate spending from TANF on child care is required to be reported under federal law, there is no requirement to report the number of children who receive child care assistance through TANF funding. Therefore, the number of children who receive a child care subsidy through TANF is unknown.

#### Child and Dependent Care Tax Credit

The federal Child and Dependent Care tax credit is a second major source of assistance provided to families with children in paid child care.<sup>26</sup> For tax year 2016, more than 6.5 million households with children in paid care received \$3.65 billion in tax credits (see Figure 19).<sup>27</sup> While households may offset their federal tax bill by up to \$1,000 per qualifying child, the average credit totaled \$560, or less than 10 percent of the typical annual cost of full-time care. The total value of the credits represents approximately 8 percent of total U.S. child care industry revenue of \$47.2 billion in 2016.

Unlike CCDF, TANF, and SSBG assistance for low-income households, the federal child care tax credit is targeted at middle-income families. Because the credit is not refundable, it is not available to low-income families who may have no federal income tax liability.<sup>28</sup>

Figure 19 also provides a distribution of the tax credits received by income range, with higher-income households generally receiving larger credits on average. Fewer than 400,000 tax filers with adjusted gross income (AGI) below \$25,000 received the credit, with only 3.3 percent of total credits going to this group. The average credit for these families was about \$325.

**Figure 19. Federal Child and Dependent Care Tax Credit**

Adjusted Gross Income (AGI)	Number of Credits	Amount of Credits (\$ thousands)	Average Credit	Share of Credits
TOTAL	6,509,210	\$3,646,888	\$560	100.0%
Under \$10,000	430	147	342	0.0%
\$10,000-under \$25,000	375,520	120,966	322	3.3%
\$25,000-under \$50,000	1,579,960	912,082	577	25.0%
\$50,000-under \$75,000	1,032,960	579,552	561	15.9%
\$75,000-under \$100,000	943,390	548,755	582	15.0%
\$100,000-under \$200,000	1,871,940	1,087,439	581	29.8%
\$200,000-under \$500,000	615,200	342,971	557	9.4%
\$500,000-under \$1,000,000	70,740	42,383	599	1.2%
\$1,000,000 or more	19,070	12,593	660	0.3%

Source: Internal Revenue Service – Tax Year 2016

Affordable child care may encourage low-skilled parents to **maintain their connection to the labor force or to upgrade their skills through education** — and become more financially independent — both of which contribute to economic growth and productivity over the long-term.

**Child care subsidies encourage greater labor force participation,** which in turn increases overall economic output. State-level estimates suggest that each dollar of federal child care funding creates \$3.80 of additional economic output.

Approximately 85 percent of total credits went to households with AGI between \$25,000 and \$200,000. More than 55 percent of credits were paid to households with AGI of \$75,000 or more. More than 40 percent of credits accrued to filers with taxable income above \$100,000 annually.

In addition to the federal credit, several states currently allow tax deductions or credits for child and dependent care expenses.<sup>29</sup> A few states provide fully or partially refundable tax credits, though most are nonrefundable.

### The Role of Public Funding by State

Major federal and state child care assistance programs combine to create a significant pool of assistance for families with children in paid child care. Recent estimates suggest that 6.5 million households received federal child care tax credits and 1.37 million children received public child care subsidies. Figure 20 provides a state-level breakdown of total child care assistance derived from both the federal-state programs and the federal Child and Dependent Care tax credit.

Combined public funding for the most recently available years of state-administered federal programs and the federal child care credit totaled \$17.6 billion. More than three-fourths (80.0 percent) of public child care assistance is received from the major federal-state subsidy programs, with the remainder from federal tax credits. For perspective, total public child care assistance is equivalent to more than one-third (37.3 percent) of the \$47.2 billion in total revenue produced by the organized child care industry in 2016.

Public funding sources play the smallest role in South Dakota's child care sector where it is equivalent to only 21.3 percent of total industry revenue. Four additional states (Wyoming, Maryland, North Dakota, and Georgia) rely far less heavily on public assistance programs, deriving less than 25 percent of total child care industry revenue. Put another way, parent fees comprise a larger share of overall child care costs in these states.

The child care industries in ten states (Washington, Delaware, Pennsylvania, Indiana, Rhode Island, Utah, New Mexico, Vermont, Wisconsin, and Ohio) are highly dependent upon public assistance programs, where they represent more than 50 percent of total child care industry revenue. Most reliant are Washington and Delaware, where families receive public child care assistance totaling 60 percent of total child care industry revenue in the state.

The National Survey of Children's Health (NSCH) found that about **8.7% of families** (2 million) with a child under age 5 had someone quit a job, not take a job, or greatly change a job in the past 12 months because of problems with child care.



**Figure 20. Federal/State Child Care Programs and Child Care Industry Revenue**

State	Child Care Industry Revenue 2016 (\$ millions)	Federal/State Child Care Assistance Programs	Federal Child & Dependent Care Tax Credit (TY2016)	Total Federal/State Programs	Public Funding as a Share of Industry Revenue
UNITED STATES	\$47,184.0	\$13,941,067,834	\$3,646,888,000	\$17,587,955,834	37.3%
Alabama	426.5	116,571,403	53,553,000	170,124,403	39.9%
Alaska	104.8	37,251,933	8,130,000	45,381,933	43.3%
Arizona	590.9	131,436,635	62,634,000	194,070,635	32.8%
Arkansas	383.9	69,109,764	28,635,000	97,744,764	25.5%
California	5,793.7	1,694,298,098	414,289,000	2,108,587,098	36.4%
Colorado	749.3	132,308,710	57,851,000	190,159,710	25.4%
Connecticut	718.0	147,010,627	44,490,000	191,500,627	26.7%
Delaware	180.3	94,196,222	13,371,000	107,567,222	59.7%
Dist. of Columbia	210.3	76,479,748	9,718,000	86,197,748	41.0%
Florida	2,736.9	777,133,203	252,555,000	1,029,688,203	37.6%
Georgia	1,593.5	271,263,777	124,340,000	395,603,777	24.8%
Hawaii	150.0	42,386,362	15,073,000	57,459,362	38.3%
Idaho	133.4	46,809,331	14,934,000	61,743,331	46.3%
Illinois	2,241.3	937,556,717	147,084,000	1,084,640,717	48.4%
Indiana	666.7	321,103,749	64,629,000	385,732,749	57.9%
Iowa	517.6	151,569,130	43,258,000	194,827,130	37.6%
Kansas	383.8	71,926,360	33,279,000	105,205,360	27.4%
Kentucky	477.4	127,992,879	37,908,000	165,900,879	34.7%
Louisiana	519.5	132,791,815	52,875,000	185,666,815	35.7%
Maine	204.4	39,099,669	15,676,000	54,775,669	26.8%
Maryland	1,026.6	135,491,082	102,596,000	238,087,082	23.2%
Massachusetts	1,693.4	606,044,770	91,140,000	697,184,770	41.2%
Michigan	879.8	189,357,710	83,777,000	273,134,710	31.0%
Minnesota	1,052.3	337,542,403	78,060,000	415,602,403	39.5%
Mississippi	438.9	102,430,117	34,229,000	136,659,117	31.1%
Missouri	818.7	215,606,649	66,133,000	281,739,649	34.4%
Montana	122.2	38,088,848	9,274,000	47,362,848	38.8%
Nebraska	353.8	88,796,801	29,820,000	118,616,801	33.5%
Nevada	244.3	66,698,637	32,717,000	99,415,637	40.7%
New Hampshire	212.0	49,422,119	17,638,000	67,060,119	31.6%
New Jersey	1,923.7	417,452,208	136,656,000	554,108,208	28.8%
New Mexico	244.1	120,238,680	12,972,000	133,210,680	54.6%
New York	4,289.9	1,220,789,108	251,834,000	1,472,623,108	34.3%
North Carolina	1,477.5	536,188,170	112,057,000	648,245,170	43.9%
North Dakota	130.6	19,569,761	12,322,000	31,891,761	24.4%
Ohio	1,589.2	727,042,457	90,309,000	817,351,457	51.4%
Oklahoma	475.1	184,096,519	31,742,000	215,838,519	45.4%
Oregon	496.3	99,885,929	37,631,000	137,516,929	27.7%
Pennsylvania	1,953.9	1,006,604,225	133,571,000	1,140,175,225	58.4%
Rhode Island	180.6	93,725,046	10,601,000	104,326,046	57.8%
South Carolina	474.9	85,699,682	59,542,000	145,241,682	30.6%
South Dakota	159.3	19,039,243	14,861,000	33,900,243	21.3%
Tennessee	751.7	135,442,300	69,197,000	204,639,300	27.2%
Texas	3,644.5	628,117,859	337,098,000	965,215,859	26.5%
Utah	223.5	107,047,283	20,866,000	127,913,283	57.2%
Vermont	125.4	59,681,895	7,526,000	67,207,895	53.6%
Virginia	1,264.1	230,474,486	114,643,000	345,117,486	27.3%
Washington	999.1	524,597,829	73,448,000	598,045,829	59.9%
West Virginia	170.3	56,301,459	8,695,000	64,996,459	38.2%
Wisconsin	889.0	406,615,825	55,540,000	462,155,825	52.0%
Wyoming	97.1	14,682,602	6,108,000	20,790,602	21.4%

Source: Census Bureau, U.S. Health and Human Services – Administration for Children and Families; Internal Revenue Service; and RegionTrack calculations  
 Notes: Total Federal/state child care spending by category by fiscal year is detailed in Figure 18.

## IV. The Organized Child Care Industry's Role in the Economy

The child care industry in the United States consists of a large network of mostly very small businesses. Most child care providers are home-based businesses operated by a sole proprietor. However, most children are served by larger, more organized child care centers. The relative size and structure of the industry differs greatly across the states, with substantial variation in the types of providers, amount of revenue produced per child care establishment, and average earnings of workers in the child care sector. It is the state-level structure of the industry that largely determines the overall economic role of the child care sector in the broader economy of each state.

### Size and Structure of the U.S. Child Care Industry

The economic structure of the child care industry reflects the two major types of care providers that commonly operate within the industry: larger, more

organized establishments with paid employees and smaller establishments typically operated by a sole proprietor with no employees. Federal employment and wage surveys track and refer to these businesses as employer and non-employer firms, respectively.

Figure 21 details several key economic measures of the size and structure of the organized U.S. child care industry. In 2016, 675,000 child care establishments produced revenue totaling \$47.2 billion and provided employment for 1.52 million wage and salary and self-employed workers.<sup>30</sup>

### Revenue Growth

Revenue in the child care industry continues to grow steadily over time. Total revenue increased 13.8 percent between 2012 and 2016 and by 22.1 percent between 2007 and 2016. Longer term, child care industry revenue has more than doubled (149 percent increase) since 1997.

Figure 21. U.S. Child Care Industry Statistics					
Economic Indicator	1997	2002	2007	2012	2016
<b>TOTAL REVENUE (\$ BILLIONS)</b>	19.0	28.8	38.6	41.5	47.2
Employers	14.2	21.8	29.7	32.0	38.2
Non-employers	4.8	7.0	8.9	9.5	9.0
<b>NUMBER OF ESTABLISHMENTS</b>	550,788	688,074	766,401	768,521	674,332
Employers	62,054	69,127	75,112	75,196	75,314
Non-employers	488,734	618,947	691,289	693,325	599,018
<b>RECEIPTS/REVENUE PER ESTABLISHMENT (\$)</b>	34,412	41,916	50,413	53,952	69,971
Employers	228,833	315,362	395,410	425,555	507,011
Non-employers	9,726	11,376	12,927	13,650	15,023
<b>TOTAL EMPLOYMENT (JOB EQUIVALENT)</b>	1,117,446	1,370,680	1,546,415	1,566,576	1,524,753
Employers	628,712	751,733	855,126	873,251	925,735
Non-employers	488,734	618,947	691,289	693,325	599,018
<b>EMPLOYEE COMPENSATION AT EMPLOYERS (\$ BILLIONS)</b>	7.0	10.5	14.0	15.6	18.8
Earnings per employee (\$)	11,075	13,972	16,316	17,851	20,274
Earnings per provider (\$)	112,209	151,938	185,749	207,298	249,206
<b>TOTAL EMPLOYEES PER ESTABLISHMENT</b>	2.03	1.99	2.02	2.04	2.26
Employers	10.1	10.9	11.4	11.6	12.3
Non-employers	1.0	1.0	1.0	1.0	1.0
<b>RECEIPTS/REVENUE PER CAPITA (\$)</b>	70.78	100.27	128.26	132.10	145.63

Source: Census Bureau – Economic Census and Non-employer Statistics; and Bureau of Labor Statistics



## Employers

The core of the U.S. child care industry is made up of slightly more than 75,000 employer firms with paid employees. Most of these businesses are traditional child care centers that collectively serve an estimated three-fourths of children enrolled in organized care.<sup>31</sup> In 2016, employer firms produced more than 80 percent (\$38.2 billion) of the \$47.2 billion in total child care industry revenue, or more than \$507,000 per child care provider. These firms employed an estimated 925,000 wage and salary workers who received \$18.8 billion in total compensation. A typical provider employed approximately 12.3 workers with an annual payroll of \$249,000. Pay in the industry remains low, with the average employee earning only \$20,274 in annual compensation.

## Non-Employers<sup>32</sup>

The remainder of the industry consists of 599,000 very small business establishments that are owned and operated by a self-employed person with no paid employees.<sup>33</sup> Most are traditional home-based family child care providers, operated either in the child's home or out of the owner's personal residence. These non-employer businesses tend to produce much less revenue than those with employees, and most would be considered microbusinesses<sup>34</sup> under federal definitions. Collectively, these very small child care providers served approximately one-fourth of all children in formal care and generated \$9.0 billion in revenue in 2016. The owners do not receive a traditional salary, receiving instead the net profit from operating the business. After operating expenses, non-employer child care providers earned an estimated \$5.35 billion in proprietor income in 2016.<sup>35</sup> A typical non-employer child care provider produced approximately \$15,000 in annual revenue, and the owner retained an estimated \$8,900 in net proprietor earnings after expenses.

## Changing Establishment Mix

A significant shift has occurred in recent years in the mix of child care providers operating within the industry. Relatively more industry activity is now provided by employer firms and less by non-employer firms.

Figure 22 provides an overview of recent changes in the number of establishments, revenue, and revenue per establishment for both employer and non-employer child care providers. The number of non-employers who provide primarily home-based care declined 20 percent between 2010 and 2016, from more than 752,000 to only 599,000. The number of employer firms declined slightly between 2010 and 2014 but resumed growth in 2014.

The reduced number of non-employer providers is reflected in the mix of industry-wide revenue growth. The 13 percent increase in industry revenue since

2012 is traced to a 19.4 percent revenue gain by employer firms offset by a 5 percent revenue decline at smaller non-employer firms.

However, both types of care providers experienced an increase in average revenue per establishment between 2010 and 2016. While total revenue earned by non-employers declined steadily from a peak of \$9.9 billion in 2011 to only \$9.0 billion in 2016, average revenue received increased 16 percent in the period, rising from \$12,990 in 2010 to more than \$15,000 in 2016. For employers, revenue per establishment increased 23.5 percent between 2010 and 2016.

The ongoing decline in the number of non-employer care providers has altered the mix of child care providers operating in most states. Since total revenue earned by non-employers peaked in 2011, the number of non-employer providers declined through 2016 in all but five states: Connecticut, Florida, Nevada, North Dakota, and South Dakota. All except Connecticut experienced very rapid population growth in the period and increased overall demand for child care services.<sup>36</sup>

For working parents, the decline in home-based care providers has limited the number of options for care and reduced the availability of the care option that typically has the lowest cost. The comparatively strong growth in revenue at employer child care facilities also suggests some parents have transitioned away from home-based care to more expensive child care centers. Again, equivalent care in a child care center typically costs 15 to 30 percent more than in a family child care home (see Figure 14).

The factors underlying the shift away from home-based care have not been studied extensively. Recent reviews of the shift from home-based care cite several contributing factors. A recent Federal Reserve Bank of Minneapolis report cites a range of factors including the cost of care outpacing subsidy growth, low net earnings from operating a home-based child care business, and an aging home-based care workforce reaching retirement age.<sup>37</sup> Other potential reasons include the cost of meeting health and safety regulations. A potential economic factor is the recent strength and low jobless rate in the U.S. labor market which can lead some providers to instead seek higher-paying employment in the community.

The number of home-based child care providers

**declined 20%**

between 2010 and 2016, from more than

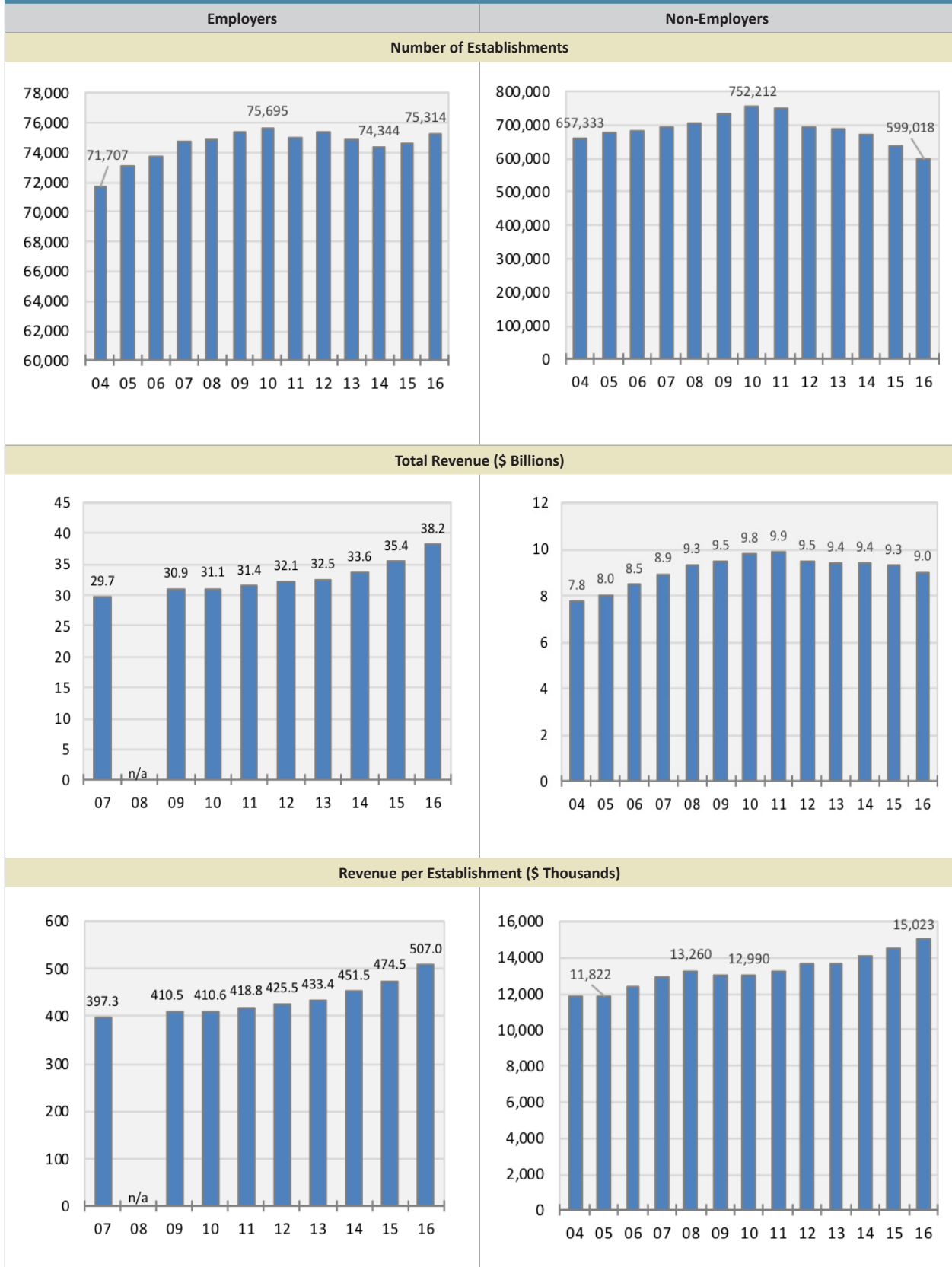
**752,000**

to only

**599,000.**

For working parents, the decline in home-based care has limited options for parents among child care settings and reduced the availability of the care option that typically has the lowest cost.

**Figure 22. Employer and Non-Employer Child Care Providers**



Source: U.S. Census Bureau – County Business Patterns, Nonemployer Statistics, Economic Census (2007) and Quarterly Services Survey  
 Notes: Estimates are for NAICS industry 6244. Revenue estimates for employers are from the Economic Census in 2007 and the Quarterly Services Survey in all other years. Employer establishments are from County Business Patterns. All nonemployer data is from Nonemployer Statistics.

**Figure 23. Child Care vs. Comparable Industries by Total Revenue (2016)**

Sector	Total Revenue
Personal care services	\$69,128,719,000
Automotive equipment rental and leasing	58,295,161,000
Transit and ground passenger transportation	53,466,278,000
Medical and diagnostic laboratories	49,878,348,000
<b>CHILD DAY CARE SERVICES</b>	<b>47,183,797,000</b>
Spectator sports	46,028,656,000
Travel arrangement and reservation services	44,920,710,000
Pipeline transportation	44,538,550,000
Water transportation	43,337,790,000
Commercial and industrial machinery and equipment repair and maintenance	36,522,605,000
Warehousing and storage	33,601,758,000
Community food and housing, and emergency and other relief services	32,643,167,000

Source: Census Bureau – Quarterly Services Survey and Non-employer Statistics

### Comparable Industries

Evaluating the overall size and scope of the child care sector is aided by placing its \$47.2 billion in total revenues alongside other industry sectors that generate similar revenues as detailed in Figure 23.

Comparable service-providing sectors include personal care services (\$69.1 billion), auto rental and leasing (\$58.3 billion), spectator sports (\$46.0 billion), travel and reservation services (\$44.9 billion), and community aid and relief services (\$32.6 billion). Transportation and infrastructure-related sectors of similar size include transit and ground transportation (\$53.5 billion), pipeline transportation (\$44.5 billion), water transportation (\$43.3 billion), and warehousing and storage (\$33.6 billion). Manufacturing and processing-related sector retail sectors include medical and diagnostic labs (\$49.9 billion) and machinery and equipment repair and manufacturing (\$36.5 billion).

### Economic Structure at the State Level

Figure 24 provides a profile of the size and structure of the organized child care sector in each state, including a breakdown of the contribution of both employer and non-employer child care providers.

The size and structure of the industry within a state has important implications for the potential economic impact the industry transmits to the broader state economy. The total economic contribution of the paid child care industry within a state is largely determined by the amount of total revenue produced.<sup>38</sup> Revenue is generally greatest in the largest states, with fourteen states producing at least \$1 billion in child care industry revenue in 2016. In California, the largest state by population, organized child care is a \$5.8 billion industry.

Wyoming, the smallest state, has the smallest organized child care sector with total revenue of \$97 million.

For states of similar size, total revenue produced by the child care sector is determined primarily by two factors: the share of children in paid care and the revenue produced per child in care. The greatest relative economic impacts are expected in those states where a higher share of children is in paid care and the child care industry produces higher revenue per child in care.

Figures 7 and 8 detail the wide variation in the share of children in paid care (14.1 percent to 39.6 percent) across the states. Again, the share is highest in the upper Plains, New England, and portions of the Mid-Atlantic region, and lowest in the Mountain West, much of the Southwest, Southern Plains, the Appalachia region, much of the Southeast, California, and Hawaii.

Revenue per child in paid care is similarly highly variable across the states (see Figure 25). Revenue per child averaged \$3,134 annually at the national level in 2016, but there is a three-fold difference between the states with the lowest- and highest-revenue per child. Idaho's child care industry produces the least revenue per child at \$1,665 annually, while Massachusetts produces the most at \$5,124 per child annually (\$5,368 in the District of Columbia).

Along with Massachusetts, other states with revenue per child of more than \$4,000 per year include New York (\$4,986), New Jersey (\$4,444), Rhode Island (\$4,224), Connecticut (\$4,181), Hawaii (\$4,099), and Delaware (\$4,001). All are among the regions with the highest average cost of care in Figure 15.

Along with Idaho, states with revenue per child in care below \$2,000 per year include Utah (\$1,778), Indiana (\$1,877), and Alabama (\$1,923). All rank among the lowest cost of care states.

Figure 24. Comparative Cost of Child Care (2017)

Region	Total						Non-Employers		
	Establishments	Total Revenue (mil.)	Total Employment	Total Earnings (mil.)	Average Revenue	Earnings per Worker	Establishments	Total Revenue (mil.)	Proprietor Earnings (mil.)
UNITED STATES	674,332	\$47,183.8	1,524,753	\$24,115.8	\$69,971	\$15,816	599,018	\$8,998.8	\$5,347.1
Alabama	7,164	426.5	16,724	200.6	59,539	11,994	6,200	73.6	39.9
Alaska	1,539	104.8	3,121	52.9	68,112	16,957	1,358	22.6	13.1
Arizona	11,434	590.9	23,149	316.6	51,681	13,676	10,572	132.9	81.5
Arkansas	5,187	383.9	14,175	198.3	74,006	13,990	4,481	53.9	32.4
California	95,137	5,793.7	163,332	2,797.6	60,898	17,128	86,889	1444.8	794.7
Colorado	9,022	749.3	22,573	407.0	83,049	18,033	7,918	128.3	80.6
Connecticut	7,860	718.0	21,100	371.5	91,354	17,605	6,931	107.8	64.7
Delaware	1,416	180.3	5,372	98.7	127,326	18,368	1,110	23.8	15.2
Dist. of Columbia	1,299	210.3	5,034	123.3	161,903	24,499	1,044	14.5	10.1
Florida	34,583	2,736.9	85,129	1,250.3	79,139	14,687	30,328	401.6	213.0
Georgia	22,969	1,593.5	55,995	789.3	69,374	14,095	20,758	238.2	136.9
Hawaii	1,209	150.0	3,949	78.2	124,047	19,798	932	17.8	10.9
Idaho	2,775	133.4	5,897	73.8	48,084	12,512	2,370	33.4	21.0
Illinois	40,944	2,241.3	75,145	1,145.7	54,740	15,246	37,958	561.0	326.6
Indiana	12,549	666.7	25,777	377.3	53,130	14,637	11,193	173.6	111.7
Iowa	11,586	517.6	22,155	320.2	44,674	14,455	10,746	209.7	143.7
Kansas	7,751	383.8	14,306	207.9	49,512	14,530	7,176	140.3	84.8
Kentucky	6,430	477.4	16,648	208.0	74,251	12,492	5,515	61.9	31.4
Louisiana	9,868	519.5	20,532	240.6	52,646	11,720	8,893	96.3	51.4
Maine	2,640	204.4	6,348	110.7	77,427	17,441	1,999	40.9	25.5
Maryland	14,269	1,026.6	31,277	557.8	71,946	17,834	12,756	246.3	152.7
Massachusetts	10,458	1,693.4	39,107	886.9	161,925	22,678	8,307	226.9	138.3
Michigan	19,270	879.8	36,238	493.7	45,655	13,623	17,539	256.4	162.6
Minnesota	15,841	1,052.3	32,408	630.9	66,428	19,467	14,434	372.7	249.7
Mississippi	8,654	438.9	17,021	182.7	50,713	10,736	7,895	87.1	41.7
Missouri	13,013	818.7	29,710	397.3	62,914	13,371	11,517	155.2	86.8
Montana	2,092	122.2	4,791	67.6	58,406	14,105	1,633	26.0	16.5
Nebraska	6,674	353.8	14,499	218.0	53,007	15,037	5,993	112.8	78.2
Nevada	5,513	244.3	9,720	128.7	44,310	13,237	5,193	59.5	35.7
New Hampshire	1,746	212.0	6,671	122.5	121,434	18,366	1,277	20.0	13.6
New Jersey	16,352	1,923.7	50,283	901.4	117,640	17,926	13,954	174.6	96.0
New Mexico	2,682	244.1	7,918	123.2	91,001	15,563	2,304	26.0	15.4
New York	64,045	4,289.9	133,439	2,271.8	66,983	17,025	58,069	822.4	501.5
North Carolina	15,593	1,477.5	47,282	745.8	94,756	15,773	12,990	160.4	94.7
North Dakota	2,890	130.6	5,723	91.4	45,173	15,969	2,572	56.0	43.2
Ohio	21,457	1,589.2	52,953	800.7	74,063	15,121	18,829	282.8	164.5
Oklahoma	6,024	475.1	16,182	245.0	78,860	15,142	5,049	78.6	46.9
Oregon	8,785	496.3	19,019	349.1	56,498	18,357	7,598	106.9	86.2
Pennsylvania	16,995	1,953.9	57,232	936.9	114,967	16,371	13,281	167.0	94.1
Rhode Island	1,682	180.6	5,229	100.7	107,388	19,263	1,410	27.5	17.8
South Carolina	8,025	474.9	18,476	238.7	59,172	12,921	7,119	76.2	44.4
South Dakota	2,827	159.3	5,784	90.3	56,337	15,614	2,567	61.0	38.4
Tennessee	13,185	751.7	28,430	360.3	57,013	12,672	11,889	139.5	77.1
Texas	56,386	3,644.5	129,150	1,787.7	64,635	13,842	50,987	600.1	340.7
Utah	4,970	223.5	10,108	131.4	44,972	13,004	4,488	58.6	39.2
Vermont	1,714	125.4	3,864	74.1	73,183	19,169	1,445	34.0	22.8
Virginia	15,890	1,264.1	40,559	656.1	79,556	16,177	14,022	218.1	130.8
Washington	9,800	999.1	27,983	563.5	101,951	20,136	7,584	170.3	111.0
West Virginia	2,309	170.3	6,121	86.2	73,764	14,078	1,944	25.8	15.1
Wisconsin	10,470	889.0	28,033	458.5	84,906	16,355	8,875	154.7	92.2
Wyoming	1,359	97.1	3,082	49.0	71,453	15,898	1,127	18.1	10.5

Continued

Figure 24. (Cont.) Comparative Cost of Child Care (2017)

Region	Non-Employers (Contd.)		Employers						
	Avg. Revenue per Estab.	Earnings per Proprietor	Establishments	Total Revenue (mil.)	Employee Comp. (mil.)	Employment	Average Revenue	Workers per Estab.	Earnings per Employee
UNITED STATES	\$15,023	\$8,926	75,314	\$38,185.0	\$18,768.7	925,735	\$507,011	12.3	\$20,274
Alabama	11,874	6,437	964	352.9	160.2	10,524	366,098	10.9	15,222
Alaska	16,649	9,635	181	82.2	39.8	1,763	454,226	9.7	22,597
Arizona	12,571	7,707	862	458.0	235.1	12,577	531,343	14.6	18,694
Arkansas	12,020	7,220	706	330.0	166.0	9,694	467,428	13.7	17,120
California	16,628	9,146	8,248	4,348.8	2,002.9	76,443	527,259	9.3	26,201
Colorado	16,205	10,176	1,104	620.9	326.5	14,655	562,454	13.3	22,278
Connecticut	15,560	9,341	929	610.2	306.7	14,169	656,833	15.3	21,647
Delaware	21,431	13,657	306	156.5	83.5	4,262	511,456	13.9	19,595
Dist. of Columbia	13,933	9,628	255	195.8	113.3	3,990	767,709	15.6	28,390
Florida	13,241	7,024	4,255	2,335.3	1,037.3	54,801	548,835	12.9	18,928
Georgia	11,476	6,597	2,211	1,355.2	652.3	35,237	612,951	15.9	18,512
Hawaii	19,148	11,652	277	132.1	67.3	3,017	476,992	10.9	22,315
Idaho	14,078	8,866	405	100.1	52.8	3,527	247,080	8.7	14,961
Illinois	14,780	8,605	2,986	1,680.2	819.1	37,187	562,707	12.5	22,026
Indiana	15,508	9,976	1,356	493.1	265.6	14,584	363,676	10.8	18,214
Iowa	19,515	13,368	840	307.9	176.6	11,409	366,530	13.6	15,478
Kansas	19,558	11,812	575	243.4	123.1	7,130	423,334	12.4	17,265
Kentucky	11,231	5,699	915	415.5	176.5	11,133	454,090	12.2	15,857
Louisiana	10,825	5,780	975	423.2	189.2	11,639	434,093	11.9	16,258
Maine	20,455	12,737	641	163.5	85.3	4,349	255,095	6.8	19,604
Maryland	19,310	11,972	1,513	780.3	405.1	18,521	515,723	12.2	21,871
Massachusetts	27,319	16,654	2,151	1,466.5	748.5	30,800	681,764	14.3	24,303
Michigan	14,616	9,271	1,731	623.4	331.1	18,699	360,144	10.8	17,706
Minnesota	25,824	17,300	1,407	679.5	381.2	17,974	482,970	12.8	21,207
Mississippi	11,038	5,285	759	351.7	141.0	9,126	463,414	12.0	15,452
Missouri	13,477	7,533	1,496	663.5	310.5	18,193	443,503	12.2	17,067
Montana	15,923	10,100	459	96.2	51.1	3,158	209,548	6.9	16,176
Nebraska	18,830	13,050	681	240.9	139.8	8,506	353,780	12.5	16,437
Nevada	11,459	6,882	320	184.8	92.9	4,527	577,407	14.1	20,526
New Hampshire	15,673	10,621	469	192.0	109.0	5,394	409,404	11.5	20,200
New Jersey	12,510	6,879	2,398	1,749.1	805.4	36,329	729,394	15.1	22,168
New Mexico	11,296	6,673	378	218.0	107.9	5,614	576,825	14.9	19,211
New York	14,163	8,635	5,976	3,467.5	1,770.3	75,370	580,243	12.6	23,489
North Carolina	12,347	7,289	2,603	1,317.1	651.1	34,292	506,006	13.2	18,986
North Dakota	21,755	16,791	318	74.6	48.2	3,151	234,580	9.9	15,299
Ohio	15,021	8,737	2,628	1,306.3	636.2	34,124	497,087	13.0	18,644
Oklahoma	15,564	9,289	975	396.5	198.1	11,133	406,636	11.4	17,797
Oregon	14,070	11,345	1,187	389.4	262.9	11,421	328,079	9.6	23,022
Pennsylvania	12,576	7,085	3,714	1,786.8	842.9	43,951	481,111	11.8	19,177
Rhode Island	19,489	12,607	272	153.1	83.0	3,819	563,039	14.0	21,720
South Carolina	10,708	6,235	906	398.6	194.3	11,357	439,986	12.5	17,113
South Dakota	23,744	14,968	260	98.3	51.9	3,217	378,129	12.4	16,131
Tennessee	11,738	6,485	1,296	612.2	283.2	16,541	472,351	12.8	17,120
Texas	11,770	6,681	5,399	3,044.4	1,447.0	78,163	563,879	14.5	18,513
Utah	13,059	8,727	482	164.9	92.3	5,620	342,121	11.7	16,419
Vermont	23,552	15,777	269	91.4	51.3	2,419	339,792	9.0	21,195
Virginia	15,552	9,328	1,868	1,046.1	525.3	26,537	559,997	14.2	19,796
Washington	22,453	14,638	2,216	828.8	452.5	20,399	374,024	9.2	22,180
West Virginia	13,246	7,776	365	144.6	71.1	4,177	396,079	11.4	17,011
Wisconsin	17,434	10,387	1,595	734.2	366.3	19,158	460,338	12.0	19,120
Wyoming	16,077	9,349	232	79.0	38.5	1,955	340,456	8.4	19,673

Source: Census Bureau, Bureau of Labor Statistics, and RegionTrack

Notes: Total employment on a job-equivalent basis is equal to wage and salary employment plus the number of proprietor establishments. Total earnings is equal to proprietors' earnings plus employees.

### Revenue and Provider Types

Cost of care is not the sole factor determining average revenue per child in care in Figure 25. The share of the industry comprised by larger child care centers versus smaller family child care homes plays a major role in determining the economic influence of the industry in a state. Child care centers have a much higher average cost of care per child and, therefore, produce much more revenue per child in care than family child care homes.

Revenue produced by family child care homes (non-employers) totaled 19.1 percent of industry revenue, versus 81.9 percent for employer firms. However, the revenue mix between the two types of providers differs greatly across the states. Several states located primarily in the mostly rural Plains and Farm Belt states have an unusually high share of revenue derived from small family child care homes. States where more than 30 percent of child care industry revenue comes from family child care homes include North Dakota (42.9 percent), Iowa (40.5 percent), South Dakota (38.3 percent), Kansas (36.6 percent), Minnesota (35.4 percent), and Nebraska (31.9 percent). Minnesota, for example, is considered a high cost of care state, but average revenue per child is relatively low (thirty-eighth) because of the high share of low-cost family child care homes used.

In contrast, states with a very low share of total industry revenue from family child care homes are located mostly along the East Coast. Areas deriving 12 percent or less of total industry revenue from family child care homes include the states of Pennsylvania (8.5 percent), New Jersey (9.1 percent), New Hampshire (9.4 percent), New Mexico (10.7 percent), North Carolina (10.9 percent), and Hawaii (11.9 percent) plus the District of Columbia (6.9 percent). Florida and New Mexico, for example, are among the lowest-cost of care states but rank tenth and fourteenth, respectively, in revenue per child in care due to a much greater role for more-costly child care centers and very low usage of lower-cost family child care homes.

### Revenue and Earnings Across States

Along with cost of living in a state, the earnings of child care workers are similarly intertwined with the average revenue per child in care and the mix of child care providers operating within a state. Figure 24 illustrates the number of child care workers and their earnings as well as the revenue earned by child care centers versus family child care homes. Because family child care homes generally charge lower fees per child than child care centers, they produce less revenue per child and receive much less revenue per worker on average than child care centers. This in turn reduces the average compensation received by operators of family child care homes. The average worker in an employer firm (mostly child care centers) received \$20,274 annually in compensation in 2016 versus an estimated \$8,900 in annual net proprietor earnings after expenses for each non-employer firm (mostly family child care homes).

Overall, U.S. child care establishments are staffed by slightly more employees working in traditional employer facilities (925,700 workers) than by proprietors operating non-employer family child care homes (599,000 proprietors). However, the ratio of paid employees to proprietors varies greatly across the states. The share of total employment in family child care homes ranges from a low of 19.1 percent in New Hampshire to a high of 53.4 percent in Nevada.

More than 50 percent of industry workers are self-employed proprietors operating family child care homes in four states (Nevada, California, Illinois, and Kansas). The high share of family child care homes in these states works to reduce the average earnings received across all child care workers.

Five states (New Hampshire, Delaware, Massachusetts, Pennsylvania, and Hawaii) and the District of Columbia have less than 25 percent of industry employment in family child care homes. Child care centers are much more prevalent in these regions. The average earnings of child care workers in these areas is enhanced by a smaller share of relatively low-paid proprietors operating family child care homes.

**Figure 25. Child Care Revenue Per Child and Per Capita**

State	Population (2016)	Children Ages 0-14		Child Care Industry Revenue (2016)				
		Total	In Paid Care	Total (millions)	Per Capita	Rank	Per Child in Paid Care	Rank
UNITED STATES	323,127,513	60,975,069	15,056,515	\$47,184.0	\$146		\$3,134	
Alabama	4,863,300	902,563	221,786	426.5	88	47	1,923	48
Alaska	741,894	157,237	41,326	104.8	141	26	2,536	36
Arizona	6,931,071	1,352,500	261,356	590.9	85	48	2,261	42
Arkansas	2,988,248	584,338	137,721	383.9	128	34	2,788	29
California	39,250,017	7,549,473	1,699,294	5,793.7	148	23	3,409	17
Colorado	5,540,545	1,050,483	273,890	749.3	135	29	2,736	31
Connecticut	3,576,452	610,072	171,713	718.0	201	6	4,181	6
Delaware	952,065	168,903	45,068	180.3	189	8	4,001	8
Dist. of Columbia	681,170	105,325	39,175	210.3	309	1	5,368	1
Florida	20,612,439	3,423,335	789,124	2,736.9	133	31	3,468	15
Georgia	10,310,371	2,075,877	447,723	1,593.5	155	18	3,559	13
Hawaii	1,428,557	260,336	36,591	150.0	105	42	4,099	7
Idaho	1,683,140	363,094	80,123	133.4	79	50	1,665	51
Illinois	12,801,539	2,412,416	582,345	2,241.3	175	11	3,849	9
Indiana	6,633,053	1,300,309	355,283	666.7	101	43	1,877	49
Iowa	3,134,693	607,020	202,698	517.6	165	16	2,554	35
Kansas	2,907,289	595,053	172,362	383.8	132	32	2,227	45
Kentucky	4,436,974	836,943	170,152	477.4	108	41	2,806	28
Louisiana	4,681,666	926,601	230,380	519.5	111	40	2,255	43
Maine	1,331,479	207,561	54,715	204.4	154	20	3,736	10
Maryland	6,016,447	1,117,097	364,055	1,026.6	171	14	2,820	26
Massachusetts	6,811,779	1,127,415	330,514	1,693.4	249	2	5,124	2
Michigan	9,928,300	1,791,477	391,645	879.8	89	46	2,246	44
Minnesota	5,519,952	1,072,998	421,249	1,052.3	191	7	2,498	37
Mississippi	2,988,726	595,739	126,532	438.9	147	24	3,469	14
Missouri	6,093,000	1,147,730	331,127	818.7	134	30	2,472	38
Montana	1,042,520	189,864	47,534	122.2	117	38	2,571	33
Nebraska	1,907,116	396,601	137,174	353.8	186	9	2,579	32
Nevada	2,940,058	564,061	118,110	244.3	83	49	2,068	46
New Hampshire	1,334,795	211,343	66,358	212.0	159	17	3,195	20
New Jersey	8,944,469	1,631,199	432,847	1,923.7	215	4	4,444	4
New Mexico	2,081,015	406,557	65,653	244.1	117	37	3,718	11
New York	19,745,289	3,456,331	860,353	4,289.9	217	3	4,986	3
North Carolina	10,146,788	1,899,183	480,807	1,477.5	146	25	3,073	22
North Dakota	757,952	150,503	56,566	130.6	172	12	2,309	40
Ohio	11,614,373	2,148,401	533,912	1,589.2	137	28	2,977	24
Oklahoma	3,923,561	803,241	137,890	475.1	121	36	3,445	16
Oregon	4,093,465	720,183	193,458	496.3	121	35	2,565	34
Pennsylvania	12,784,227	2,197,884	635,691	1,953.9	153	21	3,074	21
Rhode Island	1,056,426	170,395	42,759	180.6	171	13	4,224	5
South Carolina	4,961,119	909,577	231,656	474.9	96	44	2,050	47
South Dakota	865,454	179,688	67,935	159.3	184	10	2,345	39
Tennessee	6,651,194	1,242,807	326,650	751.7	113	39	2,301	41
Texas	27,862,596	6,086,552	1,315,907	3,644.5	131	33	2,770	30
Utah	3,051,217	773,697	125,685	223.5	73	51	1,778	50
Vermont	624,594	96,558	37,841	125.4	201	5	3,314	18
Virginia	8,411,808	1,551,740	438,669	1,264.1	150	22	2,882	25
Washington	7,288,000	1,358,873	331,711	999.1	137	27	3,012	23
West Virginia	1,831,102	309,619	47,624	170.3	93	45	3,576	12
Wisconsin	5,778,708	1,061,521	315,601	889.0	154	19	2,817	27
Wyoming	585,501	116,796	30,180	97.1	166	15	3,217	19

Source: Census Bureau – Population Estimates, Current Population Survey, and Nonemployer Statistics

## Child Care Industry's Interrelationships with Other Sectors of the Economy

Like all industry sectors, the child care industry has a strong economic interdependence with the broader economy. As a result, the child care sector's \$47.2 billion in direct economic contribution is associated with activity in other parts of the economy. The child care industry affects other industries through two primary channels: (i) the spending of earnings received by owners and employees working within the child care sector, and (ii) purchases of goods and services by child care providers to support the direct operations of child care facilities. At the state level, the size and nature of these economic flows are influenced by many factors including the share of children in paid care, the cost of care, mix of care providers, and the average revenue produced per child.

Figure 26 illustrates how an input-output model of the economy estimates that the \$47.2 billion in revenue produced by the U.S. child care industry in 2016 was subsequently re-spent by the industry. The primary categories are purchases of goods and services and various forms of value added, including employee compensation and proprietor's income.

### Compensation of Employees and Proprietor Earnings

The largest single factor in determining the overall economic impact of the child care sector within a state is the amount of direct earnings received by workers and owners providing child care services. More than half of all revenue is used to compensate employees and owners working within the industry. The large share of revenue devoted to earnings reflects the labor-intensive nature of child care provision and most other service-providing sectors.

Compensation paid to child care industry employees is the largest single component of earnings in 2016, totaling an estimated \$18.8 billion. Wage and salary earnings comprise about 85 percent of total compensation, with the remaining received as various employee benefits.<sup>39</sup> The share of these earnings re-spent within the state is a key factor in determining the size of any secondary economic influence the child care industry has on the broader state economy, as is the case for all similar service industries.

The large number of sole proprietors operating child care businesses earned an estimated \$5.4 billion in net proprietor income, or roughly 65 percent of the \$8.4 billion in gross operating surplus reported for the industry.<sup>40</sup>

### Industry Purchases

Purchases of goods and services by child care establishments are the second-largest source of child care industry spending after employee compensation. Industry purchases totaled an estimated \$19.7 billion in 2016, or 41.7 percent of total industry revenue.<sup>41</sup> The net effects of these child care industry purchases on the rest of the state and regional economies are determined in part by the share of these goods and services purchased within the region rather than imported, and by the degree to which such spending is a net addition rather than a substitute for spending that would have been undertaken by a stay-at-home parent in the absence of paid child care.

Purchases made by child care providers are spread across most major industry sectors. The two largest categories are real estate (\$6.9 billion) and manufactured goods (\$4.6 billion). Real estate remains a key element of the industry, with nearly all child care operators owning or leasing a building, home, or other structure that must be maintained on a regular basis. Most purchases of manufactured goods are for food, transportation equipment, paper products, plastic products, toys and games, cleaning products, and items needed for real estate and grounds maintenance.

Other major purchases by the industry include finance and insurance (\$1.1 billion, primarily for real estate rental) and professional, scientific, and technical services (\$1.4 billion, mostly legal, accounting, and marketing services). Smaller purchases include utilities (\$552 million), transportation and warehousing (\$423 million, primarily for vehicle transportation), accommodation and food services (\$644 million, primarily for food preparation), and information (\$596 million, for telecommunications, data processing, and publications).

The exact mix of purchases made by the child care sector varies considerably across the states. State-level prices for the various goods and services purchased by child care providers, especially real estate, will influence the share of total spending within each category.

### Taxes and Subsidies

The child care industry produces only a modest direct economic contribution in the form of net tax payments. Taxes paid by the child care industry after netting out subsidies received totaled an estimated \$382 million in 2016 (see Figure 26).<sup>42</sup> The relatively small net tax impact is traced to large federal and state subsidies provided to the industry and the low average earnings of individuals working in the industry.



**Figure 26. Child Care Industry Purchases (2016)**

NAICS Code	Industry Sector	Purchases (millions)	Share of Industry Output
11	Agriculture, Forestry, Fishing and Hunting	\$0	0.0%
21	Mining, Quarrying, and Oil and Gas Extraction	25	0.1%
22	Utilities	552	1.2%
23	Construction	254	0.5%
31-33	Manufacturing	4,647	9.8%
42	Wholesale trade	648	1.4%
44-45	Retail Trade	9	0.0%
48-49	Transportation and Warehousing	423	0.9%
51	Information	596	1.3%
52	Finance and Insurance	1,377	2.9%
53	Real Estate and Rental and Leasing	6,929	14.7%
54	Professional, Scientific, and Technical Services	1,354	2.9%
55	Management of Companies and Enterprises	527	1.1%
56	Administrative and Support & Waste Management Serv.	755	1.6%
61	Educational Services	0	0.0%
62	Health Care and Social Assistance	0	0.0%
71	Arts, Entertainment, and Recreation	224	0.5%
72	Accommodation and Food Services	644	1.4%
81	Other Services (except Public Administration)	373	0.8%
	Federal Government and Enterprises	20	0.0%
	State and Local Government and Enterprises	306	0.6%
	<b>TOTAL INTERMEDIATE PURCHASES</b>	<b>\$19,660</b>	<b>41.7%</b>
	Compensation of employees (wages & salary earnings plus supplements)	18,769	39.8%
	Taxes on production and imports, less subsidies	382	0.8%
	Gross operating surplus (including proprietor's earnings)	8,373	17.7%
	<b>TOTAL VALUE ADDED</b>	<b>27,524</b>	<b>58.3%</b>
	<b>TOTAL INDUSTRY OUTPUT</b>	<b>\$47,184</b>	<b>100.0%</b>

Source: Bureau of Economic Analysis- U.S. Input-Output Accounts

## Estimating Economic Multiplier Effects

Economic impact multipliers are commonly used to estimate the effect of a change in economic activity in a given industry on the broader regional or national economy. Most multipliers are derived from a detailed input-output model of the economy that maps the various spending flows between firms, households, and governments. State-level multipliers are typically estimated by adjusting, or regionalizing, national purchasing patterns for a given industry sector such that they better reflect the actual economic flows within the states.<sup>43</sup> It is important to note that these multipliers represent estimates of gross economic effects and do not account for any public or private costs associated with child care provision.

Multipliers provide a convenient method for estimating the effects that a change in output, employment, or earnings within an industry sector may have on broader regional or state economic activity. For the child care sector, output multipliers provide an estimate of the change in output in the broader economy per dollar of new output (or revenue) generated within the child care industry. Employment multipliers provide an estimate of the number of jobs generated in the broader economy as new jobs are added in the child care sector. Similarly, earnings multipliers provide an estimate of the amount of additional earnings generated in the broader economy per new dollar of earnings received by child care business owners and employees.

Figure 27 provides state-level RIMS II multipliers estimated by the Bureau of Economic Analysis for the child care sector.<sup>44</sup> In interpreting the multipliers, a given change in economic activity taking place within the child care industry is deemed the direct effect. The direct effect, in turn, produces both indirect and induced effects which are estimated using multipliers.

The indirect effect is the economic activity triggered in a region as a result of purchases of goods and services by child care businesses (see Figure 26) that are made within the region. The expected indirect effect is summarized using a Type I multiplier, which is calculated as  $[(\text{direct effect} + \text{indirect effect}) / \text{direct effect}]$ . The multiplier is larger in states where a higher share of purchases made by the child care industry are met by producers within the state rather than imported. The estimated share of purchases made within the state is referred to as the regional purchase coefficient (RPC).<sup>45</sup> For the child care industry, RPCs are usually quite high, generally at least 85 percent of purchases and often nearly 100 percent of the purchases of a child care establishment.

The induced effect reflects the economic activity triggered in other sectors of the economy as a result of new household spending in the region out of owner and employee earnings received as part of the direct and indirect effects. The expected induced effect is summarized using a Type II multiplier which is calculated as  $[(\text{direct effect} + \text{indirect effect} + \text{induced effect}) / \text{direct effect}]$ . Type II child care multipliers will generally be larger in regions where a larger share of child care facility purchases is made within the state or where a greater share of the earnings generated directly and indirectly through the child care sector is subsequently spent within the region. With some exceptions, the size of a Type II multiplier for most regions is closely related to the size of the corresponding Type I multiplier.

These indirect and induced effects of economic activity are generated by all industries and are not unique to child care. However, the effects of the child care industry on overall economic activity in a state will differ from that of other industries depending upon the distribution of the child care industry's spending on other goods and services and the degree to which that spending remains in the state or region.

### Calculating Multiplier Effects

Indirect and induced effects resulting from a change in output, employment, or earnings in the child care sector are easily estimated for a state using BEA multipliers in Figure 27. In Illinois, for example, an additional \$1 million in direct economic output in the child care sector is associated with \$490,000 in additional indirect output (calculated as the direct effect times the Type I multiplier of 1.49 minus 1) in other industry sectors across the state as a result of purchases made by child care providers. As added earnings from the direct and indirect effects are spent in the state economy, an additional \$850,000 in induced output (calculated as the direct effect times the Type II multiplier minus the Type I multiplier, or  $2.34 - 1.49 = 0.85$ ) is generated statewide. Overall, \$1 million of new direct output in the child care sector produces an estimated \$1,340,000 in indirect and induced output, for a total of \$2,340,000 (Type II multiplier of 2.34) in total output statewide. Employment and earnings multipliers are used in a similar manner.

**Figure 27. Child Care Industry Input-Output Multipliers (RIMS)**

State	Output		Earnings		Employment	
	Type I	Type II	Type I	Type II	Type I	Type II
Alabama	1.32	1.91	1.17	1.55	1.09	1.28
Alaska	1.24	1.73	1.12	1.44	1.07	1.25
Arizona	1.40	2.12	1.21	1.68	1.12	1.38
Arkansas	1.31	1.83	1.16	1.50	1.08	1.26
California	1.46	2.22	1.24	1.72	1.12	1.37
Colorado	1.46	2.27	1.25	1.76	1.14	1.44
Connecticut	1.38	1.94	1.20	1.55	1.08	1.24
Delaware	1.32	1.78	1.16	1.46	1.09	1.25
Dist. of Columbia	1.25	1.32	1.17	1.22	1.10	1.13
Florida	1.40	2.13	1.21	1.69	1.13	1.41
Georgia	1.46	2.26	1.25	1.76	1.12	1.38
Hawaii	1.35	1.98	1.18	1.57	1.10	1.34
Idaho	1.31	1.82	1.16	1.51	1.08	1.26
Illinois	1.49	2.34	1.26	1.78	1.12	1.40
Indiana	1.39	2.07	1.20	1.63	1.10	1.33
Iowa	1.32	1.84	1.17	1.51	1.08	1.25
Kansas	1.35	1.94	1.18	1.55	1.10	1.29
Kentucky	1.36	1.96	1.19	1.57	1.09	1.27
Louisiana	1.30	1.87	1.16	1.54	1.08	1.27
Maine	1.31	1.89	1.17	1.56	1.11	1.35
Maryland	1.39	2.00	1.20	1.59	1.10	1.32
Massachusetts	1.41	2.01	1.22	1.61	1.12	1.33
Michigan	1.38	2.05	1.20	1.64	1.08	1.28
Minnesota	1.44	2.14	1.23	1.68	1.12	1.37
Mississippi	1.26	1.78	1.14	1.47	1.07	1.24
Missouri	1.42	2.08	1.22	1.65	1.12	1.37
Montana	1.26	1.76	1.14	1.47	1.08	1.25
Nebraska	1.32	1.87	1.17	1.54	1.08	1.26
Nevada	1.37	1.94	1.19	1.56	1.11	1.32
New Hampshire	1.33	1.86	1.19	1.55	1.11	1.31
New Jersey	1.43	2.14	1.23	1.67	1.11	1.33
New Mexico	1.27	1.78	1.14	1.48	1.09	1.28
New York	1.42	2.00	1.21	1.56	1.10	1.29
North Carolina	1.41	2.13	1.22	1.68	1.12	1.37
North Dakota	1.27	1.74	1.14	1.45	1.06	1.20
Ohio	1.43	2.17	1.22	1.70	1.11	1.34
Oklahoma	1.33	1.95	1.18	1.58	1.09	1.29
Oregon	1.39	1.99	1.20	1.59	1.11	1.32
Pennsylvania	1.44	2.16	1.23	1.69	1.11	1.34
Rhode Island	1.33	1.84	1.18	1.51	1.11	1.32
South Carolina	1.38	2.05	1.20	1.62	1.10	1.33
South Dakota	1.27	1.75	1.14	1.47	1.06	1.22
Tennessee	1.44	2.23	1.23	1.73	1.10	1.32
Texas	1.48	2.39	1.25	1.82	1.10	1.34
Utah	1.44	2.20	1.23	1.71	1.11	1.35
Vermont	1.30	1.77	1.16	1.48	1.10	1.29
Virginia	1.40	2.03	1.21	1.60	1.11	1.33
Washington	1.38	2.02	1.20	1.60	1.10	1.32
West Virginia	1.24	1.66	1.13	1.42	1.07	1.21
Wisconsin	1.37	1.97	1.19	1.60	1.10	1.32
Wyoming	1.21	1.61	1.11	1.37	1.07	1.24
<b>U.S. WEIGHTED AVERAGE</b>	<b>1.41</b>	<b>2.11</b>	<b>1.22</b>	<b>1.65</b>	<b>1.11</b>	<b>1.33</b>

Source: Bureau of Economic Analysis – RIMS II (base year of regional data is 2016)

## Estimated National and State-Level Multiplier Impacts

Estimated total indirect and induced effects for the child care industry are detailed in Figure 28.<sup>46</sup> The national effect is estimated indirectly by summing the individual state effects but can also be estimated directly using national multipliers.<sup>47</sup>

### U.S. Multiplier Effects

At the national level, \$47.2 billion in direct output<sup>48</sup> generated within the organized child care industry supports an estimated \$52.1 billion in additional indirect and induced output in other industry sectors. In other words, each dollar of direct revenue produced by the child care sector supports just more than one additional dollar in output in other industry sectors nationwide. In total, output in the U.S. child care industry supports an estimated \$99.3 billion in total U.S. output, both directly and through indirect and induced multiplier effects.

The \$24.1 billion in employee compensation and net proprietor's earnings generated directly within the child care industry is associated with an additional \$15.73 billion in estimated indirect and induced earnings nationally. This suggests that less than one dollar (\$0.65) of additional earnings in the broader economy is supported by each new dollar earned by workers and proprietors in the child care sector. In total, multiplier-based estimates suggest that approximately \$39.9 billion in earnings in the United States is supported directly and indirectly by child care sector earnings.

In terms of employment, 1.52 million proprietors and wage and salary employees working in the child care sector support an estimated 507,090 jobs in other industry sectors through indirect and induced effects. Each new direct child care job supports approximately one-third of an additional job, a reflection of the relatively low employment multipliers (average of 1.33) for the child care sector across the states. In total, an estimated 2.0 million self-employed proprietors and wage and salary workers are supported both directly and indirectly by the organized child care sector.

### State Multiplier Size

The estimated child care multipliers in Figure 27 differ greatly across the states. Output multipliers are highly correlated with the overall size of the economy, with larger

states capable of meeting more of the demand for goods and services by child care establishments within the state. Larger states are also able to attract more local spending out of earnings by child care workers and proprietors.

States with the highest Type II output multiplier for the child care sector include Texas (2.39), Illinois (2.34), Colorado (2.27), Georgia (2.26), Tennessee (2.23), and California (2.22). All rank among the largest state economies. Conversely, states with the smallest Type II output multipliers include Wyoming (1.61), West Virginia (1.66), Alaska (1.73), North Dakota (1.74), South Dakota (1.75), and Montana (1.76) along with the District of Columbia (1.32). All are ranked among the smallest state economies. In fact, the Type II output multipliers (direct + indirect + induced effects) in the smallest states are only roughly equal in size to the typical Type I output multipliers (direct + indirect effects only) found in the largest states.

Earnings multipliers at the state level tend to reflect the same relative rank as output multipliers in Figure 27. The close correspondence between output and earnings multipliers reflects the fact that earnings are a relatively constant share of output across all states and reflect similar underlying economic behavior. With few exceptions, states with the largest output multipliers tend to have the largest earnings multipliers. As with output multipliers, multiplier effects from increased earnings in the child care sector are expected to be largest in the largest states.

Employment multipliers have a similar tendency to be larger in the largest states. However, they vary across the states to a greater degree than output and earnings multipliers. The added variability mostly reflects widely differing levels of intensity in the use of labor at the industry level across state economies. For example, the highly labor-intensive Florida economy has only the sixteenth-highest Type II output multiplier but the third highest Type II employment multiplier. Conversely, Texas has the second-largest Type II output multiplier but only the twenty-second highest Type II employment multiplier. States with larger child care industry employment multipliers tend to make a greater share of purchases from industries that are more labor intensive, or child care workers and proprietors will spend their earnings in industries that are more labor intensive on average. A high employment multiplier can also simply reflect a higher overall labor intensity within a state economy.

**Figure 28. Child Care Industry Gross Economic Spillover Effects (2016)**

State	Output (\$ millions)				Earnings (\$ millions)				Employment (jobs)			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Alabama	\$426.5	\$136.5	\$253.6	\$816.6	\$200.6	\$34.0	\$77.3	\$311.8	16,724	1,472	3,251	21,447
Alaska	104.8	25.5	51.0	181.3	52.9	6.5	16.8	76.2	3,121	220	573	3,914
Arizona	590.9	234.7	426.4	1,252.0	316.6	66.5	147.9	531.0	23,149	2,808	5,875	31,832
Arkansas	383.9	120.2	198.1	702.2	198.3	32.0	66.5	296.8	14,175	1,133	2,512	17,819
California	5,793.7	2,674.9	4,372.5	12,841.1	2,797.6	682.9	1,317.4	4,797.9	163,332	19,355	40,261	222,948
Colorado	749.3	345.9	608.7	1,703.8	407.0	100.4	209.9	717.3	22,573	3,124	6,736	32,433
Connecticut	718.0	273.6	400.5	1,392.1	371.5	73.4	132.3	577.1	21,100	1,699	3,271	26,069
Delaware	180.3	57.1	83.0	320.4	98.7	16.1	29.1	143.8	5,372	482	846	6,700
Dist. of Columbia	210.3	53.1	13.3	276.7	123.3	21.1	6.0	150.4	5,034	510	149	5,693
Florida	2,736.9	1,093.4	1,988.0	5,818.3	1,250.3	268.7	587.9	2,106.9	85,129	11,475	23,223	119,828
Georgia	1,593.5	727.6	1,287.2	3,608.2	789.3	193.6	404.9	1,387.8	55,995	6,876	14,156	77,027
Hawaii	150.0	52.9	93.7	296.5	78.2	13.8	30.8	122.8	3,949	400	931	5,280
Idaho	133.4	41.2	68.4	243.0	73.8	12.1	25.3	111.2	5,897	497	1,032	7,426
Illinois	2,241.3	1,105.2	1,893.4	5,239.9	1,145.7	296.3	601.9	2,043.9	75,145	9,325	20,590	105,060
Indiana	666.7	262.6	447.9	1,377.2	377.3	76.5	161.5	615.3	25,777	2,562	5,869	34,209
Iowa	517.6	168.1	267.3	953.0	320.2	52.9	109.1	482.2	22,155	1,750	3,729	27,634
Kansas	383.8	134.1	225.1	743.0	207.9	37.5	76.3	321.6	14,306	1,361	2,855	18,522
Kentucky	477.4	173.3	285.7	936.4	208.0	39.1	79.3	326.4	16,648	1,428	3,037	21,113
Louisiana	519.5	154.3	299.3	973.1	240.6	38.8	92.0	371.5	20,532	1,601	3,864	25,998
Maine	204.4	63.7	118.9	387.0	110.7	18.7	43.3	172.6	6,348	696	1,534	8,578
Maryland	1,026.6	399.6	624.2	2,050.3	557.8	111.8	216.7	886.3	31,277	3,247	6,618	41,142
Massachusetts	1,693.4	690.4	1,023.0	3,406.8	886.9	192.5	345.3	1,424.7	39,107	4,646	8,166	51,918
Michigan	879.8	332.4	587.2	1,799.4	493.7	99.5	214.1	807.3	36,238	3,019	7,161	46,417
Minnesota	1,052.3	460.1	742.1	2,254.4	630.9	145.9	285.5	1,062.3	32,408	3,782	8,118	44,308
Mississippi	438.9	114.3	229.5	782.6	182.7	24.7	61.6	269.1	17,021	1,134	2,880	21,035
Missouri	818.7	342.0	542.2	1,702.9	397.3	87.7	170.3	655.2	29,710	3,702	7,223	40,634
Montana	122.2	32.1	60.7	214.9	67.6	9.4	22.4	99.3	4,791	361	817	5,969
Nebraska	353.8	113.7	194.7	662.2	218.0	37.7	79.7	335.4	14,499	1,157	2,549	18,205
Nevada	244.3	89.6	139.1	473.0	128.7	24.3	47.4	200.4	9,720	1,077	2,014	12,811
New Hampshire	212.0	69.9	112.0	393.9	122.5	23.0	44.2	189.7	6,671	725	1,371	8,767
New Jersey	1,923.7	830.8	1,353.7	4,108.2	901.4	204.1	398.0	1,503.5	50,283	5,677	11,138	67,098
New Mexico	244.1	65.2	124.5	433.8	123.2	17.2	41.7	182.1	7,918	679	1,576	10,172
New York	4,289.9	1,799.6	2,508.3	8,597.9	2,271.8	470.0	800.8	3,542.6	133,439	13,731	24,766	171,936
North Carolina	1,477.5	609.6	1,066.0	3,153.2	745.8	162.3	343.9	1,251.9	47,282	5,584	11,986	64,852
North Dakota	130.6	35.5	60.8	226.9	91.4	13.0	28.0	132.4	5,723	331	786	6,840
Ohio	1,589.2	676.5	1,181.4	3,447.1	800.7	179.0	380.3	1,359.9	52,953	5,772	12,380	71,105
Oklahoma	475.1	156.6	294.4	926.1	245.0	43.4	99.5	387.9	16,182	1,422	3,300	20,904
Oregon	496.3	195.9	295.8	988.0	349.1	71.5	135.4	556.0	19,019	2,043	3,952	25,014
Pennsylvania	1,953.9	860.9	1,405.8	4,220.5	936.9	216.6	430.4	1,584.0	57,232	6,353	13,272	76,857
Rhode Island	180.6	59.1	91.7	331.5	100.7	17.6	33.8	152.2	5,229	599	1,071	6,899
South Carolina	474.9	180.6	317.2	972.7	238.7	47.0	101.9	387.6	18,476	1,903	4,113	24,492
South Dakota	159.3	43.2	76.5	278.9	90.3	12.8	29.2	132.4	5,784	374	894	7,052
Tennessee	751.7	333.7	593.1	1,678.5	360.3	84.0	180.1	624.4	28,430	2,749	6,300	37,479
Texas	3,644.5	1,737.7	3,310.7	8,692.9	1,787.7	448.7	1,012.5	3,248.9	129,150	13,057	30,466	172,674
Utah	223.5	97.8	170.8	492.1	131.4	30.2	63.7	225.3	10,108	1,127	2,360	13,595
Vermont	125.4	37.1	59.9	222.4	74.1	11.7	24.2	109.9	3,864	375	728	4,967
Virginia	1,264.1	511.5	789.0	2,564.6	656.1	137.1	257.9	1,051.1	40,559	4,530	8,716	53,806
Washington	999.1	379.7	636.1	2,014.9	563.5	110.9	228.3	902.7	27,983	2,893	6,151	37,027
West Virginia	170.3	41.4	71.3	283.0	86.2	11.3	24.7	122.2	6,121	405	906	7,432
Wisconsin	889.0	324.5	540.8	1,754.2	458.5	88.7	185.2	732.4	28,033	2,786	6,251	37,071
Wyoming	97.1	20.4	38.9	156.4	49.0	5.2	12.9	67.1	3,082	217	537	3,836
UNITED STATES	\$47,183.8	\$19,538.8	\$32,623.3	\$99,346.0	\$24,116.3	\$5,219.6	\$10,515.0	\$39,850.8	1,524,753	164,232	342,857	2,031,843

Source: Census Bureau, Bureau of Economic Analysis, and RegionTrack

## V. Role of Child Care in Regional Economic Growth

Prior sections of the report examine both the direct economic benefits of child care to working parents and the direct and spillover effects generated by the child care industry itself. A characteristic that is not as well understood is the indirect role played by organized child care in regional economic growth and development. Child care works to stimulate regional growth primarily through its indirect support of increased labor force participation and education of the workforce in a region.

### Linkages from Child Care to Regional Economic Growth

Child care contributes to regional economic growth by helping to employ a region's existing labor resources more efficiently. Lack of access to dependable child care can contribute to inefficiency in the use of labor. Many parents, especially single parents and low-skilled workers, may work reduced hours or opt to remain out of the labor force if they lack access to affordable child care.

Survey results from the Current Population Survey (CPS) highlight some of the child care-related concerns faced by working parents.<sup>49</sup> CPS data suggest that 1.1 million persons who usually work part-time cite problems with child care as the primary reason for not working full time on a regular basis in 2018.<sup>50</sup> Another 60,000 persons who usually work full time reported working part time in the survey period because of child care problems. A review of the 2016 CPS results suggest that 94 percent of the workers involuntarily working part-time due to child care problems are women.<sup>51</sup>

The National Survey of Children's Health (NSCH) administered by the U.S. Department of Human Services finds a broader influence of child care problems on the job status of working parents. NSCH results suggest that approximately 8.7 percent of families (2.0 million) with a child age 0 to 5 years had someone quit a job, not take a job, or greatly change a job in the past twelve months because of problems with child care.<sup>52</sup>

#### Child Care and Workforce Development

Child care supports a region's overall economic output through two distinct economic channels: increased labor force participation and added education and training. Education and training enhance the quality of the labor force while the participation rate is a key determinant of the size of the labor force.

Increased labor force participation plays a role in regional economic growth in two primary ways.<sup>53</sup> First is the direct increase in total employment, household earnings, and total economic output in a region as child care assists new workers to enter the labor force or existing workers to work more hours. Second, demand increases in the market-based child care industry as a portion of parents entering the labor force choose to use organized child care services.

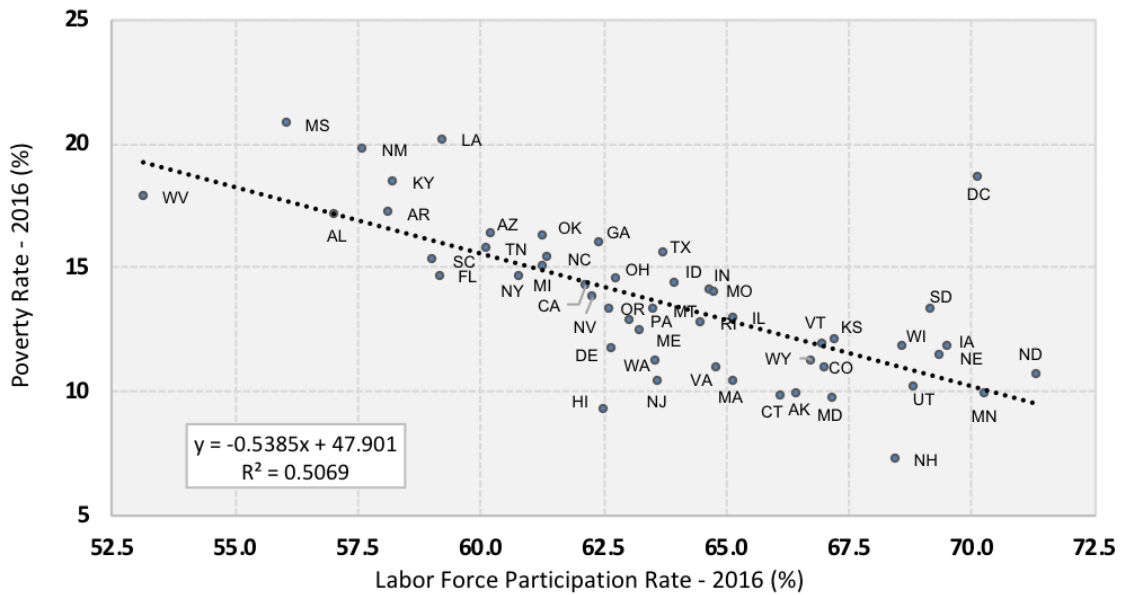
Empirical research continues to demonstrate that the labor force participation rate is a fundamental determinant of both income levels and poverty rates across the states.<sup>54</sup> Poverty, in particular, is closely intertwined with a parent's work status. Labor force participation and poverty rates at the state level are shown in Figure 29, with high-participation rate states generally having much lower poverty rates.

States with high participation rates and low poverty rates are found primarily in the Mountain West (Utah, Colorado, Wyoming), Upper Midwest (Wisconsin, Minnesota), Farm Belt (Nebraska, North Dakota, Iowa), some of the Mid-Atlantic States (Virginia and Maryland), and portions of New England (New Hampshire and Vermont).

Regions with low participation rates and high poverty rates traditionally include much of the South (Mississippi, Alabama, Arkansas, and South Carolina), the Southwest (New Mexico and Arizona), portions of Appalachia (West Virginia, Tennessee, and Kentucky), and Louisiana.

Labor force participation rates are highly variable across the states and range from about 55 percent in the lowest-participation states to just above 70 percent in the highest-participation states. There is also approximately a 15 percent range in poverty rates across the states, from just below 10 percent in many of the highest-participation states to more than 20 percent in the lowest-participation states. The wide range in participation rates suggests strong potential for reduced poverty rates in many states through increased employment. Based on the linear best-fit line in Figure 29, a 1 percent increase in the overall participation rate in a state is associated with a 0.54 percent lower rate of poverty on average.

Figure 29. Labor Force Participation and Poverty

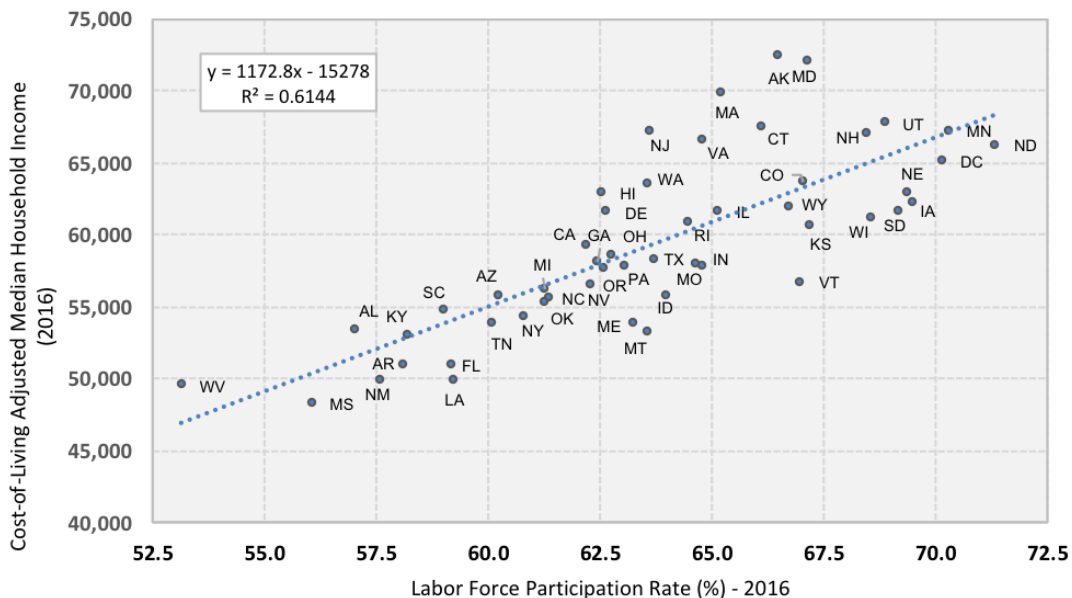


Source: Bureau of Labor Statistics and Census Bureau

As with poverty rates, labor force participation similarly helps explain differences in income levels across the states. Figure 30 illustrates the strong tendency for states with the highest participation rates to have the highest cost of living-adjusted median household incomes.<sup>55</sup> Again, similar to poverty rates, there is tremendous variation in household income across the states. Residents living

in the highest-participation rate states tend to earn on average \$20,000 more in annual income than the lowest-participation states after adjusting for differences in cost of living. The best-fit line in Figure 30 suggests that a 1 percent increase in labor force participation is associated with an additional \$1,173 in cost of living-adjusted median income on average across the states.

Figure 30. Labor Force Participation and Income

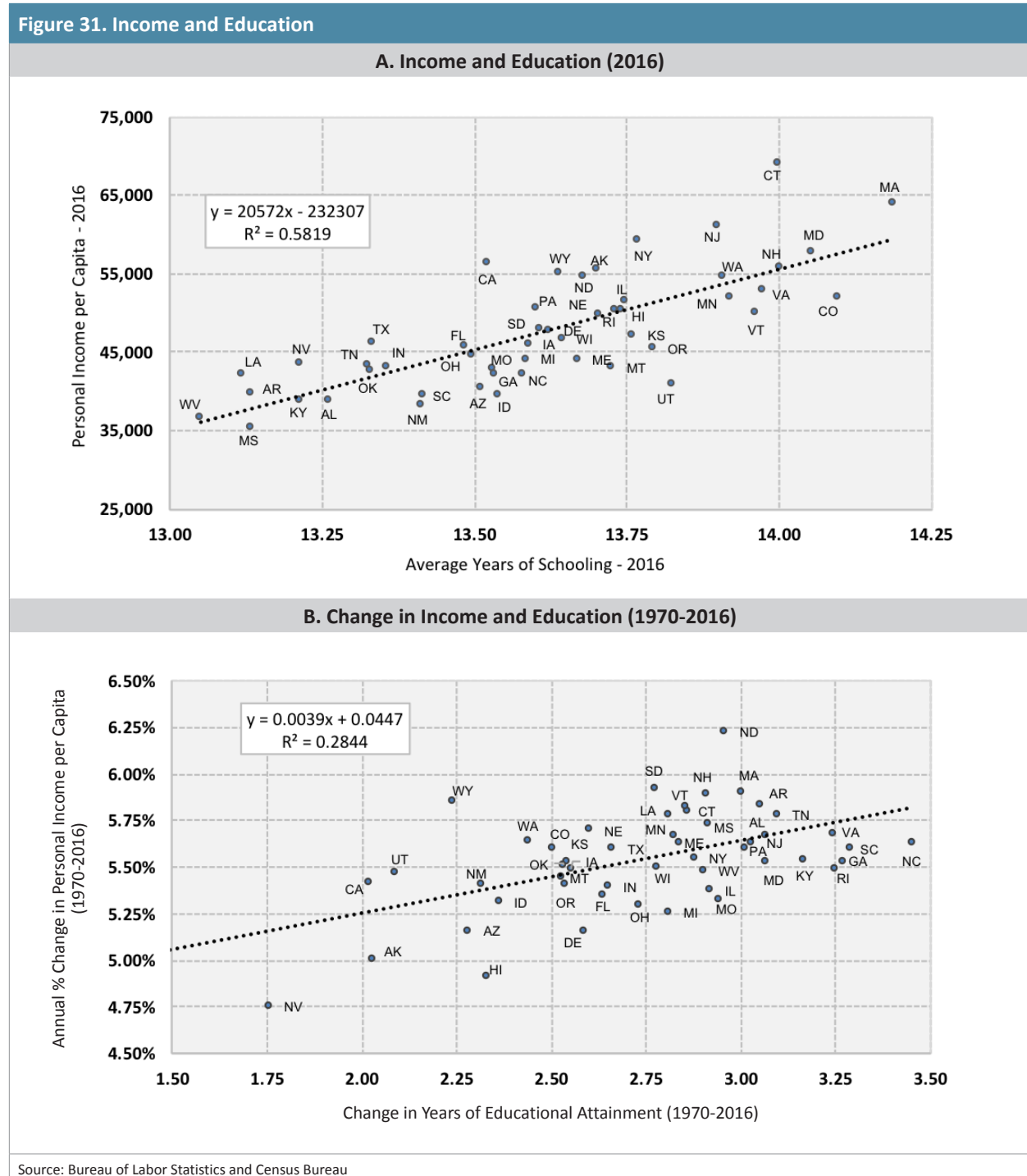


Source: Bureau of Labor Statistics; Bureau of Economic Analysis – Price Parity Index; Census Bureau

## Child Care and Education

Access to affordable child care supports parents in seeking additional education and training. Access to affordable child care is most important for low-skilled workers with fewer employment opportunities but affects all parents with children of child care age who are seeking additional work-related skills.

Most forms of education and training are believed to contribute to higher earnings over the work life.<sup>56</sup> Figure 31 illustrates the association between education and income at the state level, both currently and as education levels have changed over time. Panel A illustrates the current level of per capita personal income relative to the level of education measured by average years of schooling. Much like the labor force





participation rate, higher education is consistently associated with higher income levels across the states. States with the highest income and education levels are traditionally found in the Northeast and include Connecticut, Massachusetts, Maryland, New Jersey, Vermont, and New Hampshire. Other states outside the Northeast with high education and income levels include North Dakota, Colorado, Minnesota, Washington, Kansas, and Nebraska.

The linear best-fit line in panel A of Figure 31 suggests that one additional year of average level of schooling for a state is associated with an additional \$20,830 in personal income per capita across the states.

States with the lowest income and education levels are traditionally found in the South and include West Virginia, Mississippi, Arkansas, Kentucky, Alabama, Tennessee, Florida, and Louisiana. Other states outside the South with low income and education levels include Nevada, New Mexico, Indiana, and Arizona.

As can be seen in panel B, the rate of long-run progress on education and income varies widely across the states. Many of the states with the greatest increase in education since 1970 are historically low income and education states such as Georgia, North Carolina, South

Carolina, Kentucky, Arkansas, Tennessee, and Alabama. These states have been able to close the education and income gap relative to many high-education states including Maryland, Colorado, Massachusetts, New Hampshire, Vermont, Connecticut, New York, New Jersey, and Washington since 1970.

### Association between Labor Force Participation, Education, and Paid Child Care

States with both high levels of education and high labor participation rates tend to exhibit the highest share of children in paid child care. Figure 32 illustrates the share of paid child care usage across the states relative to both labor force participation and education.

States trailing well behind on both measures are easily identified in the lower left quadrant of Figure 32. A group of thirteen states including West Virginia, Mississippi, Arkansas, Louisiana, Kentucky, Alabama, Tennessee, South Carolina, New Mexico, Oklahoma, Nevada, Florida, and Arizona all have very low labor force participation rates and education levels. These states are also uniformly ranked among the states with the lowest share of children in paid child care. Most of

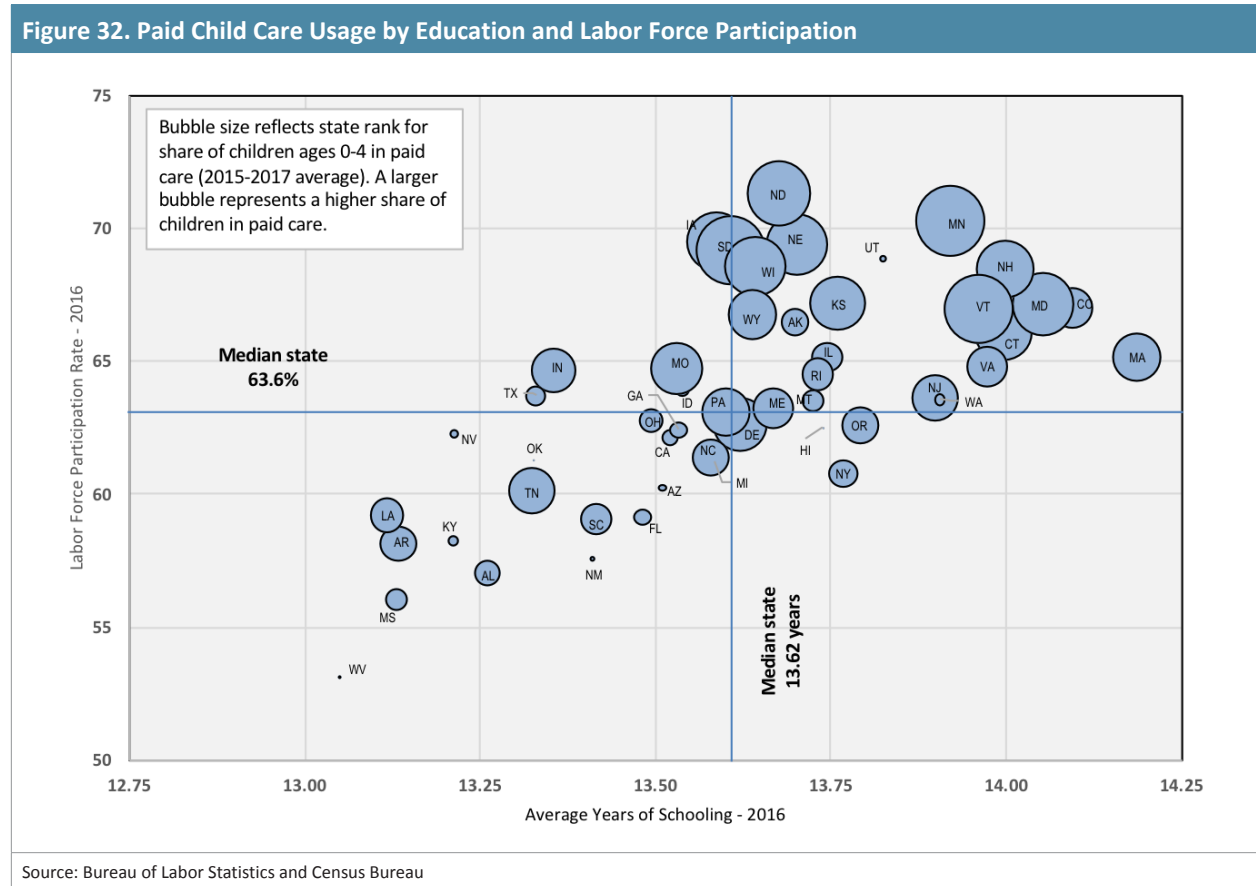


Figure 33. Measures of Income, Poverty, and the Labor Force (2016)

State	Income Measures						Poverty Measures			
	Median Household Income	Rank	Price-Parity Adjusted Median Income	Rank	Personal Income Per Capita	Rank	Poverty Rate (%)	Rank	Share of Minimum Wage Workers (%)	Rank
UNITED STATES	\$57,617		\$57,617		\$49,204		14.5		2.7	
Alabama	46,257	46	53,415	43	38,918	48	17.1	44	3.5	37
Alaska	76,440	10	72,524	1	55,674	9	9.9	5	0.7	1
Arizona	53,558	31	55,848	35	40,546	43	16.4	43	2.4	21
Arkansas	44,334	50	51,017	46	39,722	44	17.2	45	2.6	27
California	67,739	15	59,212	24	56,308	7	14.3	31	1.0	2
Colorado	65,685	5	63,772	12	52,097	14	11.0	11	2.3	18
Connecticut	73,433	2	67,556	5	69,094	2	9.8	4	1.9	12
Delaware	61,757	28	61,634	20	47,837	23	11.7	16	2.3	18
Dist. of Columbia	75,506	12	65,148	11	75,756	1	18.6	48	2.4	21
Florida	50,860	36	51,013	47	45,855	28	14.7	34	2.9	35
Georgia	53,559	37	58,153	27	42,146	41	16.0	41	3.9	41
Hawaii	74,511	9	62,932	14	50,358	19	9.3	2	1.3	6
Idaho	51,807	29	55,706	36	39,543	45	14.4	32	4.6	47
Illinois	60,960	16	61,638	19	51,679	16	13.0	24	2.4	21
Indiana	52,314	32	57,934	28	43,091	36	14.1	30	3.7	39
Iowa	56,247	20	62,358	16	46,056	27	11.8	17	2.4	21
Kansas	54,935	30	60,702	23	47,221	24	12.1	20	4.4	46
Kentucky	46,659	44	53,142	45	38,934	47	18.5	47	4.8	48
Louisiana	45,146	51	49,940	49	42,257	39	20.2	50	5.3	51
Maine	53,079	34	53,942	41	44,094	32	12.5	21	2.7	30
Maryland	78,945	4	72,096	2	57,972	6	9.7	3	2.1	16
Massachusetts	75,297	7	69,849	3	64,122	3	10.4	8	1.8	11
Michigan	52,492	35	56,262	34	44,231	31	15.0	36	2.0	14
Minnesota	65,599	11	67,281	6	51,990	15	9.9	5	1.2	4
Mississippi	41,754	48	48,326	51	35,524	51	20.8	51	4.8	48
Missouri	51,746	33	57,817	30	42,939	37	14.0	29	2.7	30
Montana	50,027	40	53,164	44	43,107	35	13.3	25	1.2	4
Nebraska	56,927	25	62,903	15	50,016	21	11.4	15	1.9	12
Nevada	55,180	39	56,653	33	43,579	33	13.8	28	1.3	6
New Hampshire	70,936	1	66,984	8	55,945	8	7.3	1	3.8	40
New Jersey	76,126	8	67,249	7	61,240	4	10.4	8	2.6	27
New Mexico	46,748	45	49,944	48	38,393	49	19.8	49	2.7	30
New York	62,909	24	54,420	40	59,289	5	14.7	34	2.0	14
North Carolina	50,584	47	55,648	37	42,203	40	15.4	38	3.6	38
North Dakota	60,656	27	66,291	10	54,801	11	10.7	10	1.6	9
Ohio	52,334	38	58,605	25	44,561	30	14.6	33	2.3	18
Oklahoma	49,176	41	55,254	38	42,717	38	16.3	42	3.1	36
Oregon	57,532	17	57,647	31	45,482	29	13.3	25	1.0	2
Pennsylvania	56,907	23	57,832	29	50,730	17	12.9	23	4.1	44
Rhode Island	60,596	14	60,839	22	50,373	18	12.8	22	2.7	30
South Carolina	49,501	42	54,818	39	39,527	46	15.3	37	5.0	50
South Dakota	54,467	22	61,684	18	48,051	22	13.3	25	1.6	9
Tennessee	48,547	43	53,822	42	43,338	34	15.8	40	3.9	41
Texas	56,565	26	58,375	26	46,204	26	15.6	39	3.9	41
Utah	65,977	6	67,808	4	41,018	42	10.2	7	2.7	30
Vermont	57,677	21	56,769	32	50,084	20	11.9	19	2.5	25
Virginia	68,114	3	66,583	9	52,941	13	11.0	11	4.3	45
Washington	67,106	13	63,608	13	54,632	12	11.3	13	1.4	8
West Virginia	43,385	49	49,526	50	36,673	50	17.9	46	2.2	17
Wisconsin	56,811	19	61,219	21	46,809	25	11.8	17	2.6	27
Wyoming	59,882	18	61,926	17	55,172	10	11.3	13	2.5	25

Continued

Figure 33. (Cont.) Measures of Income, Poverty, and the Labor Force (2016)

State	Poverty Measures (Cont.)		Labor Force Measures					
	At-Risk Employment (%)	Rank	Average Years of Schooling	Rank	Labor Force Participation Rate (%)	Rank	Women's Labor Force Participation Rate (%)	Rank
UNITED STATES	28.1		13.60		62.8		58.2	
Alabama	31.1	42	13.26	45	57.0	49	52.9	50
Alaska	34.8	47	13.70	21	66.5	15	65.6	4
Arizona	31.0	41	13.51	36	60.2	41	54.5	45
Arkansas	31.5	43	13.13	48	58.1	47	53.5	48
California	30.7	39	13.52	35	62.2	36	57.1	36
Colorado	23.4	9	14.10	3	67.0	12	62.4	13
Connecticut	26.0	18	14.00	6	66.1	16	62.6	12
Delaware	26.1	20	13.62	26	62.6	31	58.0	33
Dist. of Columbia	36.0	50	14.92	1	70.1	3	67.3	1
Florida	29.7	33	13.48	38	59.2	44	53.7	47
Georgia	28.6	30	13.53	33	62.4	34	58.2	31
Hawaii	25.9	17	13.74	17	62.5	33	60.5	19
Idaho	23.8	11	13.54	32	64.0	23	55.6	42
Illinois	26.4	21	13.74	16	65.1	18	60.6	18
Indiana	28.3	28	13.35	41	64.7	21	59.1	24
Iowa	21.8	6	13.59	29	69.5	4	62.9	11
Kansas	20.3	3	13.76	15	67.2	10	61.5	15
Kentucky	32.8	45	13.21	47	58.2	46	55.0	44
Louisiana	35.2	48	13.12	50	59.2	43	55.7	41
Maine	30.0	36	13.67	23	63.2	28	59.1	25
Maryland	24.1	13	14.05	4	67.1	11	63.9	7
Massachusetts	27.2	24	14.19	2	65.2	17	63.7	8
Michigan	30.5	38	13.58	30	61.3	39	57.0	38
Minnesota	21.2	4	13.92	9	70.3	2	65.7	3
Mississippi	34.4	46	13.13	49	56.0	50	53.5	49
Missouri	26.0	18	13.53	34	64.8	20	59.0	26
Montana	26.5	22	13.72	19	63.5	27	59.8	21
Nebraska	19.3	2	13.70	20	69.4	5	64.8	5
Nevada	29.7	33	13.21	46	62.3	35	58.5	28
New Hampshire	21.8	6	14.00	5	68.4	9	64.1	6
New Jersey	23.7	10	13.90	11	63.6	25	59.8	22
New Mexico	35.8	49	13.41	40	57.6	48	54.4	46
New York	29.9	35	13.77	14	60.8	40	58.4	29
North Carolina	28.9	31	13.58	31	61.4	37	57.1	37
North Dakota	21.5	5	13.68	22	71.3	1	65.8	2
Ohio	28.5	29	13.49	37	62.8	30	58.7	27
Oklahoma	29.4	32	13.33	43	61.3	38	55.7	40
Oregon	28.2	27	13.79	13	62.6	32	57.2	35
Pennsylvania	27.4	25	13.60	28	63.1	29	58.0	32
Rhode Island	31.5	43	13.73	18	64.5	22	59.7	23
South Carolina	30.4	37	13.42	39	59.0	45	56.6	39
South Dakota	24.4	14	13.61	27	69.2	6	63.4	9
Tennessee	30.7	39	13.32	44	60.1	42	55.6	43
Texas	27.1	23	13.33	42	63.7	24	57.8	34
Utah	18.5	1	13.82	12	68.8	7	60.2	20
Vermont	27.4	25	13.96	8	67.0	13	62.3	14
Virginia	25.1	15	13.97	7	64.8	19	60.9	17
Washington	25.7	16	13.91	10	63.6	26	58.3	30
West Virginia	36.3	51	13.05	51	53.1	51	50.0	51
Wisconsin	23.9	12	13.64	24	68.6	8	63.0	10
Wyoming	22.9	8	13.64	25	66.7	14	61.0	16

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, and Census Bureau

these states have a labor force participation rate that is approximately 3 percentage points below that of the median state and average years of schooling 0.3 years below that of the median state. These states also tend to rank well below the median based on both household income and poverty rate (see Figure 33).

A second tier of ten states ranks below the median state based on either labor force participation or education, or trails slightly on both measures. This tier includes Texas, Indiana, Ohio, Georgia, Missouri, Idaho, California, North Carolina, Michigan, and New York. These states also use relatively low shares of paid child care. States in this tier generally rank closer to the median state based on income and poverty measures than do states in the first tier. All except New York rank well behind the median state in terms of education.

Seven states in a third tier have approximately median levels of both labor force participation and education. This tier includes Delaware, Pennsylvania, Maine, Rhode Island, Montana, Hawaii, and Illinois. Nearly all these states use paid child care at approximately the national rate and rank near the median based on both income level and poverty. Hawaii is the only state in the group with a share of paid care use lower than the national share.

The remaining twenty states fall in the upper right quadrant of Figure 32. These states have a labor force participation rate at or above the median rate of 63.6 percent and average years of schooling equal to or higher than the median of 13.62 years. These states generally have among the highest median household incomes and lowest poverty rates, and nearly all rank among the top half of the states based upon their share of paid child care usage. Among the group, only Utah, New Jersey, Washington, and Alaska have below average usage rates for paid child care. All four of these states are traditionally viewed as states with historically low rates of paid child care usage.

### **Economic Rationale for Using Child Care Assistance as a Policy Tool**

Equity concerns over the societal distribution of income typically underpin the provision of child care assistance to low-income households. A lack of affordable child care can serve as a significant barrier to sustained employment and improved economic status for many working parents, particularly those in low-income households.

Efforts to improve the economic status of low-income households intensified with passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), a major welfare reform

initiative designed to aid parents receiving public assistance to move from welfare to work. A key aspect of the reform is the provision of child care assistance to low-income parents that enables them to work or enter job training or education programs.

Federal and state child care assistance programs (see Figure 18) remain an important policy tool used to assist low-skilled workers in obtaining affordable child care. The availability of affordable care can enable new entrants to join the workforce and raise household earnings and spending in a region. In most states, child care subsidies are used in conjunction with organized child care providers, which stimulate added market-based activity in the child care sector.

### **The Growth Effects of Subsidized Child Care**

Despite the known direct economic benefits of child care subsidies to both households and the child care industry, the public policy concern remains that the cost of subsidies may offset any potential net economic gain indirectly benefitting the broader economy. If negative growth effects of any tax increases required to finance the subsidies offset positive growth effects from employment gains and added child care industry activity, this would present a clear policy tradeoff whereby subsidies merely redistribute income among households at the expense of reduced overall economic growth.

Surprisingly, little research addresses the conditions under which child care subsidies may represent a tradeoff between equity and economic growth. Most existing studies examine only a partial set of potential economic effects from the provision of subsidies, focusing primarily on added labor force participation and child care industry demand. However, recent empirical simulations<sup>57</sup> examine the specific question of whether the use of child care subsidies to encourage work or training for low-skilled workers can produce net economic benefits at the state level. The simulations illustrate a wide range of potential direct and indirect benefits resulting from the provision of subsidized child care to low-skilled workers in Oklahoma derived from a custom computable general equilibrium (CGE) model of the state economy. CGE models provide a means for modeling the detailed impacts of child care on various sectors of the state economy, many of which are indirect and, on the surface, may appear unrelated to child care subsidization. A unique feature of the CGE model is that organized child care is treated as a separate producing industry sector, with detailed linkages defined between the child care sector and the state economy.

In the model, the demand for organized child care services depends upon participation in the labor market and increases proportionately with total employment.<sup>58</sup>

The decision by households of whether to use organized or informal care depends upon the price of organized child care, net of subsidies. Low-skilled workers are tracked as a component of the state labor force in the model and receive training benefits in the form of higher wages. Training benefits are assumed equal to the average realized wage gains for completers of full-time occupational training programs.<sup>59</sup> Simulations are then run assuming various funding mechanisms for an overall 10 percent increase in child care subsidies through state and local government.

### Channels of Economic Growth

In all simulations using the CGE model, child care subsidies work as expected to encourage low-skilled workers to enter the labor force. The supply of low-skilled labor increases and pushes up earned income in the region net of child care costs. Output increases substantially in the organized child care sector, driven primarily by increased subsidy payments to the industry and increased numbers of children in care.

Beyond these effects, detailed linkages in the CGE model capture several additional economic channels linking child care assistance to the state economy. Increased subsidy payments trigger responses in wage rates, the mix of low- and high-skilled labor used in the state, prices of goods and services, and trade flows. Initially, the added supply of low-skilled entrants into the labor force puts slight downward pressure on the overall real wage rate earned by low-skilled workers. This simultaneously works to increase competition among low-skilled workers for existing low-skilled jobs in the state.<sup>60</sup> Lower real wages for low-skilled workers also work to increase the competitiveness of state businesses both regionally and internationally, leading to increased exports and reduced imports. Industries that are most intensive in the use of low-skilled labor benefit the most from the newly available labor. These include agriculture, some manufacturing sectors, retail, transportation, and other low-skilled service sectors such as accommodations and food services. Increased production in these industries also increases the demand for capital goods. Increased low-skilled labor also works to increase the relative scarcity of high-skilled labor in the state, slightly increasing the wage rate of high-skilled workers.

### Funding Child Care Assistance

The key factor in determining the size of any realized net benefit from child care subsidies is the manner in which they are funded. The most advantageous case, from an individual state's perspective, is if the funding is provided from outside the region (e.g., federal child care subsidies). In that instance, subsidized child care produces substantial net economic gains to the state.

State output increases by roughly 3.8 dollars per dollar of additional spending on child care subsidies. There would, of course, be offsetting losses at the federal level.

Similarly, if funding for subsidies were shifted proportionately from all categories of state and local government spending in a non-distortionary<sup>61</sup> manner, subsidies for low-skilled workers would produce a similar sized increase in state economic output. This suggests that subsidization of low-skilled parents to enter the labor force could produce more net economic activity, on average, than many alternative uses of state and local government spending.

However, when new taxes are levied on either income or capital to pay for the subsidies, the negative effects of the tax slightly more than offset the overall increase in economic activity from the subsidy. This outcome would be consistent with the presence of a general equity-growth tradeoff whereby added taxes outweigh the broader economic benefits from subsidies.

### Child Care's Role in Economic Development

In sum, there can be an important role for child care to play as a facilitator of economic growth. The decision to work or seek additional education may depend upon the availability of affordable child care, especially for low-wage workers with children. Affordable child care may encourage low-skilled parents to maintain their connection to the labor force or to upgrade their skills through education, both of which contribute to economic growth and productivity over the longer term.

Overall, the simulated results from the CGE model illustrate that it is possible to raise the income of the least skilled and most disadvantaged workers in a state through subsidized child care. Most of the effects of child care subsidies on state economic activity work through the increase in low-skilled labor induced into the labor force by the child care subsidy. Low-skilled workers benefit through increased household income net of child care expenses, which makes additional income available for spending. The state's organized child care sector captures increased subsidy spending which subsequently produces spillover effects within the state economy. The results further suggest that child care subsidies can provide net economic benefits to a state economy even after accounting for the cost of subsidies, depending upon how those funds are raised. In short, child care provides a viable means for working parents, often the least skilled, to become more financially independent by engaging in productive work potentially without imposing economic burdens on the broader state economy.

## VI. Summary of the Economic Role of Child Care

By providing regular care for 11.8 million preschool-aged children and 4.0 million school-aged children, the organized child care sector continues to serve its traditional role of helping working parents enter and remain in the workforce. The use of paid child care services is reported for one-third of U.S. preschoolers under the age of 5 and one-fourth of children ages 14 and under.

### Child care contributes to regional economic growth.

Lack of access to dependable child care can result in workers who reduce their hours or opt to remain out of the labor force.

The use of organized care is not evenly distributed across U.S. households. Organized care is used most heavily by households where all parents are in the workforce and by parents with higher education and income levels who receive greater market reward from work. The use of organized child care services is also lower in areas with higher poverty and in rural areas located far from a larger region.

Child care usage varies greatly at the regional and state levels. Regionally, usage of paid child care is highest in the upper Plains, New England, and portions of the Mid-Atlantic region. Usage is much less prevalent in the Mountain West, much of the Southwest, Southern Plains, the Appalachia region, much of the Southeast, California, and Hawaii. At the state level, the share of children ages 14 and under in paid child care ranges widely, from 14.1 percent in Hawaii to 39.6 percent in Vermont.

### Revenue in the child care industry continues to grow steadily over time.

The total revenue between 2012 and 2016 has increased by **13.8%**,

and between 2007 and 2016 by **22.1%**.

Long term, the child care industry has **more than doubled** (149%) since 1997.

Demographic trends continue to influence the use of organized child care. Labor force participation rates for women have stabilized in recent years, but the participation rate of mothers with children under the age of 6 increased steadily between 2005 and 2017 to 65.1 percent. Changing household arrangements are also closely tied to child care usage. More than one in four (27.0 percent) children in the United States lives in a household with only one parent present, and 40 percent of all children currently born in the United States have an unmarried mother. Single parents and unmarried mothers are more

likely to need access to affordable care to enter the labor force and generally experience less-positive workforce outcomes, including higher unemployment rates. Census survey results also find that 94 percent of the

workers who are involuntarily working part time rather than full time due to child care problems are women.

The cost of care remains a hurdle for many parents seeking to enter the labor force. Estimates suggest that center-based infant care costs almost 20 percent of the median household income nationally, while care for a 4-year-old in a family home costs 12.9 percent of median income. The share of household income spent on child care is much higher for families with more than one child in care and those with younger children, making them less likely to use paid care. To give a sense of scale, many forms of organized child care now cost as much as public higher education in many states.

Federal and state child care subsidies and tax credits remain key components of affordability for many families. Total federal and state child care subsidies and tax credits (\$17.6 billion) equal more than one third (37.3 percent) of total U.S. child care industry revenue. The child care industries in ten states (Washington, Delaware, Pennsylvania, Indiana, Rhode Island, Utah, New Mexico, Vermont, Wisconsin, and Ohio) are highly dependent upon public assistance programs, where they represent more than 50 percent of total child care industry revenue.

More than 675,000 child care establishments produced total revenue of \$47.2 billion in 2016. Child care establishments were staffed by 925,000 wage and salary workers who received compensation of \$18.8 billion in 2016. Approximately 599,000 non-employer child care providers (mostly family child care homes) earned net self-employment income after costs of \$5.4 billion.

The industry produces economic spillover effects through two direct channels: earnings paid to wage and salary and self-employed workers (\$24.2 billion) and purchases of goods and services (\$19.7 billion). Output in the U.S. child care industry supports an estimated \$99.3 billion in total U.S. output, both directly and through estimated multiplier effects. Revenues and payrolls of the child care industry are highest in states with a high share of children in care, a high average cost of care, and a greater share of children in higher-cost child care centers versus family child care homes.

The U.S. Census Bureau data suggests that **1.1 million** individuals who usually work part-time cite problems with child care as the primary reason for not working full-time on a regular basis in 2018. Another **60,000** individuals who usually work full-time reported working part-time because of child care problems.



Child care also works indirectly to stimulate regional economic growth through its support of increased labor force participation and education of the workforce in a region. States with higher labor force participation rates and education levels consistently have higher incomes and lower poverty rates. Access to affordable child care plays a critical role in the process by helping low-skilled parents to enter the workforce or seek added training and education.

Despite the economic benefits of child care subsidies to both households and the child care sector, the public policy concern remains that the cost of subsidies may offset any potential net economic gain. Recent empirical research suggests that using child care subsidies at the state level to help low-skilled workers enter the labor force can produce net economic gains, even after accounting for the cost of subsidies, depending upon how funding for the subsidies is raised. Findings suggest that increased child care subsidies trigger a range of state-level economic responses, including changes in wage rates, the mix of low- and high-skilled labor used in the state, prices of goods and services, and trade flows. Most of the effects of child care subsidies work through the increase in low-skilled workers induced to enter the labor force by the child care subsidy. The outcomes that occur include increased output in the broader economy, increased exports and reduced imports, increased competitiveness for industries intensive in the use of low-skilled labor, greater capital spending, and wage increases among high-skilled workers.

The U.S. child care system now serves as a vital form of economic infrastructure recognized by employers,

## THE INDUSTRY AT A GLANCE

**75,000** child care centers      **599,000** family child care homes

Nationally  
**\$47.2 billion**  
 in child care  
 revenue supports  
 an additional  
**\$52.1 billion**  
 in spillover in  
 other industries  
 for a  
**total economic  
 impact of  
 \$99.3 billion.**

### CHILD CARE AND OTHER MAJOR INDUSTRIES HAVE COMPARABLE REVENUE

- transit and ground passenger transportation \$53 billion
- medical and diagnostic laboratories \$49 billion
- spectator sports \$46 billion
- pipeline transportation \$44 billion
- water transportation \$43 billion
- commercial and industrial machinery and equipment repair and maintenance \$36 billion

working parents, and policymakers alike as an essential source of support to the work force. Understanding the various economic roles played by child care and the forces shaping the size and structure of the child care industry is vital to forming effective child care policy. This includes monitoring and responding to changes in both the supply of child care services and the demand for child care by working parents. The state-specific structure of the industry suggests that ongoing efforts like the current report will be needed to inform the process going forward.

## VII. Data Appendices

**Appendix 1. Key Child Care Industry Characteristics**

**Appendix 2. State Rankings of Key Child Care Industry Characteristics**

**Appendix 3. Non-Employer Child Care Establishments by State**





## Appendix 1. Key Child Care Industry Characteristics

Region	Population		Population Children Ages 0-4		Population Share Children Ages 0-4		Children in Paid Care Ages 0-4		Share of Children in Paid Care Ages 0-4		(% Labor Force Participation Rate)	
	2017	Rank	2017	Rank	2017	Rank	2017	Rank	2017	Rank	2016	Rank
UNITED STATES	325,719,178		19,938,860		6.3%		6,425,592		32.2%		62.8	
Alabama	4,874,747	24	293,554	25	6.1%	34	91,199	25	31.1%	33	57.0	49
Alaska	739,795	48	54,083	47	7.6%	3	17,329	48	32.0%	32	66.5	15
Arizona	7,016,270	14	437,262	14	6.6%	16	110,404	22	25.2%	46	60.2	41
Arkansas	3,004,279	32	191,435	32	6.5%	18	64,659	31	33.8%	26	58.1	47
California	39,536,653	1	2,471,513	1	6.5%	19	694,704	1	28.1%	40	62.2	36
Colorado	5,607,154	21	336,207	21	6.4%	21	121,473	21	36.1%	22	67.0	12
Connecticut	3,588,184	29	183,321	35	5.1%	48	72,797	30	39.7%	11	66.1	16
Delaware	961,939	45	54,992	45	6.0%	38	21,492	44	39.1%	13	62.6	31
Dist. of Columbia	693,972	49	45,035	49	7.0%	8	21,969	43	48.8%	4	70.1	3
Florida	20,984,400	3	1,138,095	4	5.8%	42	321,397	4	28.2%	38	59.2	44
Georgia	10,429,379	8	660,313	8	6.6%	13	186,194	11	28.2%	39	62.4	34
Hawaii	1,427,538	40	90,109	40	6.6%	14	16,206	49	18.0%	51	62.5	33
Idaho	1,716,943	39	117,037	38	7.3%	6	32,353	37	27.6%	41	64.0	23
Illinois	12,802,023	6	773,049	5	6.0%	36	251,465	6	32.5%	30	65.1	18
Indiana	6,666,818	17	421,176	15	6.4%	22	153,152	15	36.4%	20	64.7	21
Iowa	3,145,711	30	198,996	30	6.4%	20	82,476	27	41.4%	9	69.5	4
Kansas	2,913,123	35	193,139	31	6.7%	11	75,940	28	39.3%	12	67.2	10
Kentucky	4,454,189	26	276,883	26	6.3%	24	74,890	29	27.0%	44	58.2	46
Louisiana	4,684,333	25	312,038	23	6.8%	10	104,275	23	33.4%	27	59.2	43
Maine	1,335,907	42	64,502	41	4.9%	50	23,175	42	35.9%	23	63.2	28
Maryland	6,052,177	19	366,385	18	6.2%	31	159,299	13	43.5%	6	67.1	11
Massachusetts	6,859,819	15	360,588	19	5.4%	45	139,216	19	38.6%	16	65.2	17
Michigan	9,962,311	10	573,282	10	5.8%	43	157,726	14	27.5%	42	61.3	39
Minnesota	5,576,606	22	355,231	20	6.6%	17	193,203	9	54.4%	1	70.3	2
Mississippi	2,984,100	34	187,177	33	6.3%	26	55,563	32	29.7%	35	56.0	50
Missouri	6,113,532	18	374,479	17	6.2%	30	145,933	17	39.0%	14	64.8	20
Montana	1,050,493	44	63,291	43	6.3%	29	18,398	46	29.1%	36	63.5	27
Nebraska	1,920,076	37	133,061	36	7.1%	7	55,298	33	41.6%	7	69.4	5
Nevada	2,998,039	33	185,837	34	6.7%	12	49,748	36	26.8%	45	62.3	35
New Hampshire	1,342,795	41	64,481	42	4.9%	49	26,035	40	40.4%	10	68.4	9
New Jersey	9,005,644	11	521,718	11	5.9%	40	191,568	10	36.7%	19	63.6	25
New Mexico	2,088,070	36	128,145	37	6.2%	33	27,080	39	21.1%	48	57.6	48
New York	19,849,399	4	1,164,406	3	5.9%	39	374,083	3	32.1%	31	60.8	40
North Carolina	10,273,419	9	609,713	9	6.3%	28	216,306	7	35.5%	25	61.4	37
North Dakota	755,393	47	54,043	48	7.6%	4	25,723	41	47.6%	5	71.3	1
Ohio	11,658,609	7	698,780	7	6.0%	35	210,403	8	30.1%	34	62.8	30
Oklahoma	3,930,864	28	263,740	27	6.9%	9	53,846	35	20.4%	50	61.3	38
Oregon	4,142,776	27	235,968	29	6.0%	37	83,819	26	35.5%	24	62.6	32
Pennsylvania	12,805,537	5	708,829	6	5.6%	44	267,229	5	37.7%	17	63.1	29
Rhode Island	1,059,639	43	54,761	46	5.2%	47	17,897	47	32.7%	28	64.5	22
South Carolina	5,024,369	23	293,653	24	6.2%	32	95,616	24	32.6%	29	59.0	45
South Dakota	869,666	46	61,759	44	7.3%	5	30,879	38	50.0%	2	69.2	6
Tennessee	6,715,984	16	408,644	16	6.3%	25	150,203	16	36.8%	18	60.1	42
Texas	28,304,596	2	2,031,625	2	7.7%	2	589,090	2	29.0%	37	63.7	24
Utah	3,101,833	31	255,200	28	8.8%	1	54,689	34	21.4%	47	68.8	7
Vermont	623,657	50	30,035	51	4.8%	51	14,984	50	49.9%	3	67.0	13
Virginia	8,470,020	12	511,674	12	6.3%	27	184,930	12	36.1%	21	64.8	19
Washington	7,405,743	13	458,213	13	6.6%	15	125,134	20	27.3%	43	63.6	26
West Virginia	1,815,857	38	98,484	39	5.3%	46	20,436	45	20.8%	49	53.1	51
Wisconsin	5,795,483	20	335,888	22	5.9%	41	139,402	18	41.5%	8	68.6	8
Wyoming	579,315	51	37,031	50	6.4%	23	14,305	51	38.6%	15	66.7	14

Continued

**Appendix 1. (Cont.) Key Child Care Industry Characteristics**

Region	(% Women's Labor Force Participation Rate)		Median Household Income (\$)		% of Children Under Age 5 In Poverty		Average Years of Schooling		Total Child Care Industry Revenue (\$millions)		Total Federal/state child care assistance (\$)	
	2016	Rank	2017	Rank	2017	Rank	2016	Rank	2016	Rank	Primarily FY2017	Rank
UNITED STATES	58.2		60,336		20.3%		13.60		47,184.0		16,614,711,507	
Alabama	52.9	50	48,123	46	28.3%	4	13.26	45	426.5	31	172,278,433	27
Alaska	65.6	4	73,181	8	15.5%	34	13.70	21	104.8	50	38,226,309	48
Arizona	54.5	45	56,581	29	23.1%	17	13.51	36	590.9	23	218,538,979	21
Arkansas	53.5	48	45,869	49	24.5%	9	13.13	48	383.9	32	100,839,386	37
California	57.1	36	71,805	9	18.8%	26	13.52	35	5,793.7	1	2,135,419,090	1
Colorado	62.4	13	69,117	12	13.3%	46	14.10	3	749.3	20	183,429,583	25
Connecticut	62.6	12	74,168	6	13.7%	44	14.00	6	718.0	21	191,942,684	23
Delaware	58.0	33	62,852	18	25.7%	6	13.62	26	180.3	42	108,359,827	34
Dist. of Columbia	67.3	1	82,372	1	25.4%	7	14.92	1	210.3	39	87,472,583	40
Florida	53.7	47	52,594	40	21.7%	19	13.48	38	2,736.9	4	972,130,127	5
Georgia	58.2	31	56,183	33	23.4%	14	13.53	33	1,593.5	9	409,089,964	12
Hawaii	60.5	19	77,765	4	13.5%	45	13.74	17	150.0	45	53,704,327	45
Idaho	55.6	42	52,225	41	18.1%	29	13.54	32	133.4	46	64,468,867	42
Illinois	60.6	18	62,992	17	18.8%	26	13.74	16	2,241.3	5	1,090,354,783	3
Indiana	59.1	24	54,181	35	20.8%	20	13.35	41	666.7	22	337,370,245	15
Iowa	62.9	11	58,570	26	15.5%	34	13.59	29	517.6	25	169,374,507	28
Kansas	61.5	15	56,422	31	16.6%	32	13.76	15	383.8	33	111,774,046	33
Kentucky	55.0	44	48,375	45	25.2%	8	13.21	47	477.4	27	185,469,793	24
Louisiana	55.7	41	46,145	48	32.2%	2	13.12	50	519.5	24	173,948,222	26
Maine	59.1	25	56,277	32	13.8%	43	13.67	23	204.4	40	53,142,423	46
Maryland	63.9	7	80,776	2	13.1%	47	14.05	4	1,026.6	14	255,907,556	20
Massachusetts	63.7	8	77,385	5	14.6%	39	14.19	2	1,693.4	8	606,806,183	8
Michigan	57.0	38	54,909	34	23.8%	11	13.58	30	879.8	17	325,737,798	17
Minnesota	65.7	3	68,388	13	12.6%	48	13.92	9	1,052.3	13	392,944,614	14
Mississippi	53.5	49	43,529	50	26.8%	5	13.13	49	438.9	30	131,342,914	31
Missouri	59.0	26	53,578	37	20.6%	22	13.53	34	818.7	18	280,362,480	18
Montana	59.8	21	53,386	38	19.6%	24	13.72	19	122.2	49	40,351,779	47
Nebraska	64.8	5	59,970	22	15.3%	38	13.70	20	353.8	34	107,047,222	35
Nevada	58.5	28	58,003	27	20.4%	23	13.21	46	244.3	35	105,354,830	36
New Hampshire	64.1	6	73,381	7	11.0%	51	14.00	5	212.0	38	59,550,000	43
New Jersey	59.8	22	80,088	3	15.5%	34	13.90	11	1,923.7	7	491,297,190	11
New Mexico	54.4	46	46,744	47	28.9%	3	13.41	40	244.1	36	95,161,658	38
New York	58.4	29	64,894	15	20.8%	20	13.77	14	4,289.9	2	1,142,901,648	2
North Carolina	57.1	37	52,752	39	23.7%	12	13.58	31	1,477.5	11	589,586,107	9
North Dakota	65.8	2	61,843	19	12.4%	50	13.68	22	130.6	47	29,772,831	50
Ohio	58.7	27	54,021	36	23.2%	15	13.49	37	1,589.2	10	824,092,008	7
Oklahoma	55.7	40	50,051	44	23.2%	15	13.33	43	475.1	28	192,805,634	22
Oregon	57.2	35	60,212	21	18.3%	28	13.79	13	496.3	26	144,878,381	30
Pennsylvania	58.0	32	59,195	25	19.5%	25	13.60	28	1,953.9	6	955,952,454	6
Rhode Island	59.7	23	63,870	16	17.3%	30	13.73	18	180.6	41	89,991,690	39
South Carolina	56.6	39	50,570	43	24.3%	10	13.42	39	474.9	29	162,932,525	29
South Dakota	63.4	9	56,521	30	17.3%	30	13.61	27	159.3	44	34,514,030	49
Tennessee	55.6	43	51,340	42	23.7%	12	13.32	44	751.7	19	270,090,169	19
Texas	57.8	34	59,206	24	22.8%	18	13.33	42	3,644.5	3	1,024,828,452	4
Utah	60.2	20	68,358	14	12.5%	49	13.82	12	223.5	37	123,393,082	32
Vermont	62.3	14	57,513	28	14.6%	39	13.96	8	125.4	48	57,612,102	44
Virginia	60.9	17	71,535	10	14.6%	39	13.97	7	1,264.1	12	330,116,376	16
Washington	58.3	30	70,979	11	14.3%	42	13.91	10	999.1	15	500,856,477	10
West Virginia	50.0	51	43,469	51	32.6%	1	13.05	51	170.3	43	65,852,060	41
Wisconsin	63.0	10	59,305	23	15.8%	33	13.64	24	889.0	16	398,148,416	13
Wyoming	61.0	16	60,434	20	15.5%	34	13.64	25	97.1	51	22,136,579	51

## Appendix 2. State Rankings of Key Child Care Industry Characteristics

Population			Population Children Ages 0-4			Population Share Children Ages 0-4			Children in Paid Care Ages 0-4		
Rank	Region	2017	Rank	Region	2017	Rank	Region	2017	Rank	Region	2017
	UNITED STATES	325,719,178		UNITED STATES	19,938,860		UNITED STATES	6.3%		UNITED STATES	6,522,680
1	California	39,536,653	1	California	2,471,513	1	Utah	8.8%	1	California	694,704
2	Texas	28,304,596	2	Texas	2,031,625	2	Texas	7.7%	2	Texas	589,090
3	Florida	20,984,400	3	New York	1,164,406	3	Alaska	7.6%	3	New York	374,083
4	New York	19,849,399	4	Florida	1,138,095	4	North Dakota	7.6%	4	Florida	321,397
5	Pennsylvania	12,805,537	5	Illinois	773,049	5	South Dakota	7.3%	5	Pennsylvania	267,229
6	Illinois	12,802,023	6	Pennsylvania	708,829	6	Idaho	7.3%	6	Illinois	251,465
7	Ohio	11,658,609	7	Ohio	698,780	7	Nebraska	7.1%	7	North Carolina	216,306
8	Georgia	10,429,379	8	Georgia	660,313	8	Dist. of Columbia	7.0%	8	Ohio	210,403
9	North Carolina	10,273,419	9	North Carolina	609,713	9	Oklahoma	6.9%	9	Minnesota	193,203
10	Michigan	9,962,311	10	Michigan	573,282	10	Louisiana	6.8%	10	New Jersey	191,568
11	New Jersey	9,005,644	11	New Jersey	521,718	11	Kansas	6.7%	11	Georgia	186,194
12	Virginia	8,470,020	12	Virginia	511,674	12	Nevada	6.7%	12	Virginia	184,930
13	Washington	7,405,743	13	Washington	458,213	13	Georgia	6.6%	13	Maryland	159,299
14	Arizona	7,016,270	14	Arizona	437,262	14	Hawaii	6.6%	14	Michigan	157,726
15	Massachusetts	6,859,819	15	Indiana	421,176	15	Washington	6.6%	15	Indiana	153,152
16	Tennessee	6,715,984	16	Tennessee	408,644	16	Arizona	6.6%	16	Tennessee	150,203
17	Indiana	6,666,818	17	Missouri	374,479	17	Minnesota	6.6%	17	Missouri	145,933
18	Missouri	6,113,532	18	Maryland	366,385	18	Arkansas	6.5%	18	Wisconsin	139,402
19	Maryland	6,052,177	19	Massachusetts	360,588	19	California	6.5%	19	Massachusetts	139,216
20	Wisconsin	5,795,483	20	Minnesota	355,231	20	Iowa	6.4%	20	Washington	125,134
21	Colorado	5,607,154	21	Colorado	336,207	21	Colorado	6.4%	21	Colorado	121,473
22	Minnesota	5,576,606	22	Wisconsin	335,888	22	Indiana	6.4%	22	Arizona	110,404
23	South Carolina	5,024,369	23	Louisiana	312,038	23	Wyoming	6.4%	23	Louisiana	104,275
24	Alabama	4,874,747	24	South Carolina	293,653	24	Kentucky	6.3%	24	South Carolina	95,616
25	Louisiana	4,684,333	25	Alabama	293,554	25	Tennessee	6.3%	25	Alabama	91,199
26	Kentucky	4,454,189	26	Kentucky	276,883	26	Mississippi	6.3%	26	Oregon	83,819
27	Oregon	4,142,776	27	Oklahoma	263,740	27	Virginia	6.3%	27	Iowa	82,476
28	Oklahoma	3,930,864	28	Utah	255,200	28	North Carolina	6.3%	28	Kansas	75,940
29	Connecticut	3,588,184	29	Oregon	235,968	29	Montana	6.3%	29	Kentucky	74,890
30	Iowa	3,145,711	30	Iowa	198,996	30	Missouri	6.2%	30	Connecticut	72,797
31	Utah	3,101,833	31	Kansas	193,139	31	Maryland	6.2%	31	Arkansas	64,659
32	Arkansas	3,004,279	32	Arkansas	191,435	32	South Carolina	6.2%	32	Mississippi	55,563
33	Nevada	2,998,039	33	Mississippi	187,177	33	New Mexico	6.2%	33	Nebraska	55,298
34	Mississippi	2,984,100	34	Nevada	185,837	34	Alabama	6.1%	34	Utah	54,689
35	Kansas	2,913,123	35	Connecticut	183,321	35	Ohio	6.0%	35	Oklahoma	53,846
36	New Mexico	2,088,070	36	Nebraska	133,061	36	Illinois	6.0%	36	Nevada	49,748
37	Nebraska	1,920,076	37	New Mexico	128,145	37	Oregon	6.0%	37	Idaho	32,353
38	West Virginia	1,815,857	38	Idaho	117,037	38	Delaware	6.0%	38	South Dakota	30,879
39	Idaho	1,716,943	39	West Virginia	98,484	39	New York	5.9%	39	New Mexico	27,080
40	Hawaii	1,427,538	40	Hawaii	90,109	40	New Jersey	5.9%	40	New Hampshire	26,035
41	New Hampshire	1,342,795	41	Maine	64,502	41	Wisconsin	5.9%	41	North Dakota	25,723
42	Maine	1,335,907	42	New Hampshire	64,481	42	Florida	5.8%	42	Maine	23,175
43	Rhode Island	1,059,639	43	Montana	63,291	43	Michigan	5.8%	43	Dist. of Columbia	21,969
44	Montana	1,050,493	44	South Dakota	61,759	44	Pennsylvania	5.6%	44	Delaware	21,492
45	Delaware	961,939	45	Delaware	54,992	45	Massachusetts	5.4%	45	West Virginia	20,436
46	South Dakota	869,666	46	Rhode Island	54,761	46	West Virginia	5.3%	46	Montana	18,398
47	North Dakota	755,393	47	Alaska	54,083	47	Rhode Island	5.2%	47	Rhode Island	17,897
48	Alaska	739,795	48	North Dakota	54,043	48	Connecticut	5.1%	48	Alaska	17,329
49	Dist. of Columbia	693,972	49	Dist. of Columbia	45,035	49	New Hampshire	4.9%	49	Hawaii	16,206
50	Vermont	623,657	50	Wyoming	37,031	50	Maine	4.9%	50	Vermont	14,984
51	Wyoming	579,315	51	Vermont	30,035	51	Vermont	4.8%	51	Wyoming	14,305

Continued

**Appendix 2. (Cont.) State Rankings of Key Child Care Industry Characteristics**

Share of Children in Paid Care Ages 0-4			Labor Force Participation Rate (%)			Women's Labor Force Participation Rate (%)			Median Household Income (\$)		
Rank	Region	2017	Rank	Region	2016	Rank	Region	2016	Rank	Region	2017
	UNITED STATES	32.7%		UNITED STATES	62.8		UNITED STATES	58.2		UNITED STATES	60,336
1	Minnesota	54.4%	1	North Dakota	71.3	1	Dist. of Columbia	67.3	1	Dist. of Columbia	82,372
2	South Dakota	50.0%	2	Minnesota	70.3	2	North Dakota	65.8	2	Maryland	80,776
3	Vermont	49.9%	3	Dist. of Columbia	70.1	3	Minnesota	65.7	3	New Jersey	80,088
4	Dist. of Columbia	48.8%	4	Iowa	69.5	4	Alaska	65.6	4	Hawaii	77,765
5	North Dakota	47.6%	5	Nebraska	69.4	5	Nebraska	64.8	5	Massachusetts	77,385
6	Maryland	43.5%	6	South Dakota	69.2	6	New Hampshire	64.1	6	Connecticut	74,168
7	Nebraska	41.6%	7	Utah	68.8	7	Maryland	63.9	7	New Hampshire	73,381
8	Wisconsin	41.5%	8	Wisconsin	68.6	8	Massachusetts	63.7	8	Alaska	73,181
9	Iowa	41.4%	9	New Hampshire	68.4	9	South Dakota	63.4	9	California	71,805
10	New Hampshire	40.4%	10	Kansas	67.2	10	Wisconsin	63.0	10	Virginia	71,535
11	Connecticut	39.7%	11	Maryland	67.1	11	Iowa	62.9	11	Washington	70,979
12	Kansas	39.3%	12	Colorado	67.0	12	Connecticut	62.6	12	Colorado	69,117
13	Delaware	39.1%	13	Vermont	67.0	13	Colorado	62.4	13	Minnesota	68,388
14	Missouri	39.0%	14	Wyoming	66.7	14	Vermont	62.3	14	Utah	68,358
15	Wyoming	38.6%	15	Alaska	66.5	15	Kansas	61.5	15	New York	64,894
16	Massachusetts	38.6%	16	Connecticut	66.1	16	Wyoming	61.0	16	Rhode Island	63,870
17	Pennsylvania	37.7%	17	Massachusetts	65.2	17	Virginia	60.9	17	Illinois	62,992
18	Tennessee	36.8%	18	Illinois	65.1	18	Illinois	60.6	18	Delaware	62,852
19	New Jersey	36.7%	19	Virginia	64.8	19	Hawaii	60.5	19	North Dakota	61,843
20	Indiana	36.4%	20	Missouri	64.8	20	Utah	60.2	20	Wyoming	60,434
21	Virginia	36.1%	21	Indiana	64.7	21	Montana	59.8	21	Oregon	60,212
22	Colorado	36.1%	22	Rhode Island	64.5	22	New Jersey	59.8	22	Nebraska	59,970
23	Maine	35.9%	23	Idaho	64.0	23	Rhode Island	59.7	23	Wisconsin	59,305
24	Oregon	35.5%	24	Texas	63.7	24	Indiana	59.1	24	Texas	59,206
25	North Carolina	35.5%	25	New Jersey	63.6	25	Maine	59.1	25	Pennsylvania	59,195
26	Arkansas	33.8%	26	Washington	63.6	26	Missouri	59.0	26	Iowa	58,570
27	Louisiana	33.4%	27	Montana	63.5	27	Ohio	58.7	27	Nevada	58,003
28	Rhode Island	32.7%	28	Maine	63.2	28	Nevada	58.5	28	Vermont	57,513
29	South Carolina	32.6%	29	Pennsylvania	63.1	29	New York	58.4	29	Arizona	56,581
30	Illinois	32.5%	30	Ohio	62.8	30	Washington	58.3	30	South Dakota	56,521
31	New York	32.1%	31	Delaware	62.6	31	Georgia	58.2	31	Kansas	56,422
32	Alaska	32.0%	32	Oregon	62.6	32	Pennsylvania	58.0	32	Maine	56,277
33	Alabama	31.1%	33	Hawaii	62.5	33	Delaware	58.0	33	Georgia	56,183
34	Ohio	30.1%	34	Georgia	62.4	34	Texas	57.8	34	Michigan	54,909
35	Mississippi	29.7%	35	Nevada	62.3	35	Oregon	57.2	35	Indiana	54,181
36	Montana	29.1%	36	California	62.2	36	California	57.1	36	Ohio	54,021
37	Texas	29.0%	37	North Carolina	61.4	37	North Carolina	57.1	37	Missouri	53,578
38	Florida	28.2%	38	Oklahoma	61.3	38	Michigan	57.0	38	Montana	53,386
39	Georgia	28.2%	39	Michigan	61.3	39	South Carolina	56.6	39	North Carolina	52,752
40	California	28.1%	40	New York	60.8	40	Oklahoma	55.7	40	Florida	52,594
41	Idaho	27.6%	41	Arizona	60.2	41	Louisiana	55.7	41	Idaho	52,225
42	Michigan	27.5%	42	Tennessee	60.1	42	Idaho	55.6	42	Tennessee	51,340
43	Washington	27.3%	43	Louisiana	59.2	43	Tennessee	55.6	43	South Carolina	50,570
44	Kentucky	27.0%	44	Florida	59.2	44	Kentucky	55.0	44	Oklahoma	50,051
45	Nevada	26.8%	45	South Carolina	59.0	45	Arizona	54.5	45	Kentucky	48,375
46	Arizona	25.2%	46	Kentucky	58.2	46	New Mexico	54.4	46	Alabama	48,123
47	Utah	21.4%	47	Arkansas	58.1	47	Florida	53.7	47	New Mexico	46,744
48	New Mexico	21.1%	48	New Mexico	57.6	48	Arkansas	53.5	48	Louisiana	46,145
49	West Virginia	20.8%	49	Alabama	57.0	49	Mississippi	53.5	49	Arkansas	45,869
50	Oklahoma	20.4%	50	Mississippi	56.0	50	Alabama	52.9	50	Mississippi	43,529
51	Hawaii	18.0%	51	West Virginia	53.1	51	West Virginia	50.0	51	West Virginia	43,469

Continued

**Appendix 2. (Cont.) State Rankings of Key Child Care Industry Characteristics**

Children under age 5 in Poverty (%)			Average Years of Schooling			Total Child Care Industry Revenue (\$millions)			Total Federal/state child care assistance (\$)		
Rank	Region	2017	Rank	Region	2016	Rank	Region	2016	Rank	Region	Multiple Years
	UNITED STATES	20.3%		UNITED STATES	13.60		UNITED STATES	47,184.0		UNITED STATES	17,587,955,834
1	West Virginia	32.6%	1	Dist. of Columbia	14.92	1	California	5,793.7	1	California	2,108,587,098
2	Louisiana	32.2%	2	Massachusetts	14.19	2	New York	4,289.9	2	New York	1,472,623,108
3	New Mexico	28.9%	3	Colorado	14.10	3	Texas	3,644.5	3	Pennsylvania	1,140,175,225
4	Alabama	28.3%	4	Maryland	14.05	4	Florida	2,736.9	4	Illinois	1,084,640,717
5	Mississippi	26.8%	5	New Hampshire	14.00	5	Illinois	2,241.3	5	Florida	1,029,688,203
6	Delaware	25.7%	6	Connecticut	14.00	6	Pennsylvania	1,953.9	6	Texas	965,215,859
7	Dist. of Columbia	25.4%	7	Virginia	13.97	7	New Jersey	1,923.7	7	Ohio	817,351,457
8	Kentucky	25.2%	8	Vermont	13.96	8	Massachusetts	1,693.4	8	Massachusetts	697,184,770
9	Arkansas	24.5%	9	Minnesota	13.92	9	Georgia	1,593.5	9	North Carolina	648,245,170
10	South Carolina	24.3%	10	Washington	13.91	10	Ohio	1,589.2	10	Washington	598,045,829
11	Michigan	23.8%	11	New Jersey	13.90	11	North Carolina	1,477.5	11	New Jersey	554,108,208
12	North Carolina	23.7%	12	Utah	13.82	12	Virginia	1,264.1	12	Wisconsin	462,155,825
13	Tennessee	23.7%	13	Oregon	13.79	13	Minnesota	1,052.3	13	Minnesota	415,602,403
14	Georgia	23.4%	14	New York	13.77	14	Maryland	1,026.6	14	Georgia	395,603,777
15	Ohio	23.2%	15	Kansas	13.76	15	Washington	999.1	15	Indiana	385,732,749
16	Oklahoma	23.2%	16	Illinois	13.74	16	Wisconsin	889.0	16	Virginia	345,117,486
17	Arizona	23.1%	17	Hawaii	13.74	17	Michigan	879.8	17	Missouri	281,739,649
18	Texas	22.8%	18	Rhode Island	13.73	18	Missouri	818.7	18	Michigan	273,134,710
19	Florida	21.7%	19	Montana	13.72	19	Tennessee	751.7	19	Maryland	238,087,082
20	Indiana	20.8%	20	Nebraska	13.70	20	Colorado	749.3	20	Oklahoma	215,838,519
21	New York	20.8%	21	Alaska	13.70	21	Connecticut	718.0	21	Tennessee	204,639,300
22	Missouri	20.6%	22	North Dakota	13.68	22	Indiana	666.7	22	Iowa	194,827,130
23	Nevada	20.4%	23	Maine	13.67	23	Arizona	590.9	23	Arizona	194,070,635
24	Montana	19.6%	24	Wisconsin	13.64	24	Louisiana	519.5	24	Connecticut	191,500,627
25	Pennsylvania	19.5%	25	Wyoming	13.64	25	Iowa	517.6	25	Colorado	190,159,710
26	California	18.8%	26	Delaware	13.62	26	Oregon	496.3	26	Louisiana	185,666,815
27	Illinois	18.8%	27	South Dakota	13.61	27	Kentucky	477.4	27	Alabama	170,124,403
28	Oregon	18.3%	28	Pennsylvania	13.60	28	Oklahoma	475.1	28	Kentucky	165,900,879
29	Idaho	18.1%	29	Iowa	13.59	29	South Carolina	474.9	29	South Carolina	145,241,682
30	Rhode Island	17.3%	30	Michigan	13.58	30	Mississippi	438.9	30	Oregon	137,516,929
31	South Dakota	17.3%	31	North Carolina	13.58	31	Alabama	426.5	31	Mississippi	136,659,117
32	Kansas	16.6%	32	Idaho	13.54	32	Arkansas	383.9	32	New Mexico	133,210,680
33	Wisconsin	15.8%	33	Georgia	13.53	33	Kansas	383.8	33	Utah	127,913,283
34	Alaska	15.5%	34	Missouri	13.53	34	Nebraska	353.8	34	Nebraska	118,616,801
35	Iowa	15.5%	35	California	13.52	35	Nevada	244.3	35	Delaware	107,567,222
36	New Jersey	15.5%	36	Arizona	13.51	36	New Mexico	244.1	36	Kansas	105,205,360
37	Wyoming	15.5%	37	Ohio	13.49	37	Utah	223.5	37	Rhode Island	104,326,046
38	Nebraska	15.3%	38	Florida	13.48	38	New Hampshire	212.0	38	Nevada	99,415,637
39	Massachusetts	14.6%	39	South Carolina	13.42	39	Dist. of Columbia	210.3	39	Arkansas	97,744,764
40	Vermont	14.6%	40	New Mexico	13.41	40	Maine	204.4	40	Dist. of Columbia	86,197,748
41	Virginia	14.6%	41	Indiana	13.35	41	Rhode Island	180.6	41	Vermont	67,207,895
42	Washington	14.3%	42	Texas	13.33	42	Delaware	180.3	42	New Hampshire	67,060,119
43	Maine	13.8%	43	Oklahoma	13.33	43	West Virginia	170.3	43	West Virginia	64,996,459
44	Connecticut	13.7%	44	Tennessee	13.32	44	South Dakota	159.3	44	Idaho	61,743,331
45	Hawaii	13.5%	45	Alabama	13.26	45	Hawaii	150.0	45	Hawaii	57,459,362
46	Colorado	13.3%	46	Nevada	13.21	46	Idaho	133.4	46	Maine	54,775,669
47	Maryland	13.1%	47	Kentucky	13.21	47	North Dakota	130.6	47	Montana	47,362,848
48	Minnesota	12.6%	48	Arkansas	13.13	48	Vermont	125.4	48	Alaska	45,381,933
49	Utah	12.5%	49	Mississippi	13.13	49	Montana	122.2	49	South Dakota	33,900,243
50	North Dakota	12.4%	50	Louisiana	13.12	50	Alaska	104.8	50	North Dakota	31,891,761
51	New Hampshire	11.0%	51	West Virginia	13.05	51	Wyoming	97.1	51	Wyoming	20,790,602

**Appendix 3. Non-Employer Child Care Establishments by State**

State	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alabama	5,025	5,137	5,749	6,278	6,979	7,244	7,348	7,550	7,026	6,807	6,566	6,611	6,200
Alaska	2,063	2,069	1,995	1,932	1,775	1,744	1,667	1,618	1,538	1,500	1,470	1,432	1,358
Arizona	9,537	10,057	9,857	10,158	10,404	10,927	11,569	12,161	11,221	11,474	11,368	11,220	10,572
Arkansas	3,891	4,058	4,085	4,229	4,242	4,473	4,690	4,796	4,587	4,787	4,781	4,584	4,481
California	102,984	104,950	103,745	110,510	111,492	118,524	120,810	116,595	103,417	103,362	100,678	94,492	86,889
Colorado	9,575	9,800	9,599	9,485	9,495	9,800	9,945	9,735	9,187	8,986	8,614	8,280	7,918
Connecticut	6,130	5,945	6,027	6,189	6,304	6,364	6,709	6,707	6,667	7,233	7,420	7,160	6,931
Delaware	1,804	1,795	1,769	1,761	1,676	1,574	1,448	1,468	1,329	1,301	1,263	1,197	1,110
Dist. of Columbia	794	875	797	813	824	894	1,074	1,377	1,486	1,513	1,409	1,171	1,044
Florida	19,707	20,318	21,116	22,542	24,135	26,483	28,424	29,160	29,938	30,974	31,592	31,292	30,328
Georgia	14,745	16,802	17,928	19,111	20,691	22,379	23,436	23,897	22,933	23,643	23,197	22,263	20,758
Hawaii	1,145	1,197	1,166	1,165	1,240	1,232	1,184	1,122	1,102	1,087	1,024	951	932
Idaho	3,941	4,136	3,977	3,683	3,557	3,510	3,267	3,117	2,884	2,691	2,652	2,474	2,370
Illinois	44,665	46,092	45,405	44,572	46,865	49,017	50,929	51,317	47,254	45,997	45,837	43,597	37,958
Indiana	11,836	12,326	12,505	12,576	12,862	13,370	13,919	13,880	13,068	12,649	12,497	11,835	11,193
Iowa	13,706	14,005	14,229	13,967	13,857	13,540	13,500	13,174	12,426	12,078	11,602	11,281	10,746
Kansas	9,840	10,032	9,821	9,643	9,703	9,624	9,647	9,202	8,731	8,270	7,907	7,415	7,176
Kentucky	6,626	6,827	6,890	6,743	6,855	6,972	6,996	7,175	6,514	6,276	5,971	5,879	5,515
Louisiana	8,429	8,412	8,877	8,536	8,613	9,484	9,864	10,316	9,258	9,467	9,014	9,001	8,893
Maine	3,274	3,255	3,326	3,394	3,011	2,875	2,759	2,671	2,369	2,279	2,160	2,083	1,999
Maryland	13,358	13,236	13,088	13,513	13,688	14,112	14,650	15,021	14,776	15,565	15,580	14,200	12,756
Massachusetts	10,394	10,305	10,110	10,602	10,658	10,834	11,124	10,877	10,398	9,962	9,518	8,732	8,307
Michigan	35,927	37,524	38,041	36,354	35,741	33,321	31,485	29,003	25,535	23,202	20,736	18,955	17,539
Minnesota	20,132	20,418	20,434	20,154	20,189	19,943	19,872	19,455	17,558	16,796	15,979	15,113	14,434
Mississippi	4,206	4,597	5,231	5,779	6,390	7,538	8,570	9,064	8,529	8,931	8,626	8,562	7,895
Missouri	15,760	15,336	14,916	14,376	14,445	14,615	15,089	15,149	14,076	13,395	12,702	12,129	11,517
Montana	2,399	2,453	2,466	2,377	2,330	2,288	2,323	2,133	1,960	1,857	1,761	1,675	1,633
Nebraska	7,360	7,545	7,845	7,658	7,554	7,569	7,586	7,495	7,128	6,861	6,549	6,275	5,993
Nevada	2,525	2,845	2,989	3,051	3,358	4,097	4,436	4,931	4,628	5,306	5,431	5,303	5,193
New Hampshire	2,238	2,430	2,329	2,340	2,284	2,218	1,900	1,808	1,703	1,587	1,541	1,423	1,277
New Jersey	11,226	11,579	11,908	11,979	12,561	13,866	15,624	15,749	14,415	14,914	15,379	14,852	13,954
New Mexico	6,139	6,089	5,152	4,616	4,319	4,378	4,200	3,937	3,502	3,226	2,956	2,566	2,304
New York	71,140	71,346	73,274	70,542	70,833	73,742	77,378	77,138	71,698	72,391	69,612	64,678	58,069
North Carolina	11,213	11,794	11,818	12,330	12,703	13,295	14,009	14,539	13,981	14,159	13,915	13,397	12,990
North Dakota	3,158	3,089	3,074	3,002	3,019	2,948	2,950	2,928	2,751	2,796	2,790	2,638	2,572
Ohio	21,392	22,139	22,330	22,702	23,018	24,348	25,280	25,082	23,348	22,651	21,220	20,387	18,829
Oklahoma	6,849	7,138	6,863	6,470	6,148	6,129	6,276	6,061	5,580	5,397	5,333	5,097	5,049
Oregon	11,083	11,638	11,503	11,529	12,064	11,577	11,146	10,293	9,110	8,742	8,568	8,134	7,598
Pennsylvania	13,531	15,372	16,617	19,139	19,978	19,767	19,577	18,947	16,974	16,002	15,500	14,541	13,281
Rhode Island	1,960	1,902	2,014	2,071	2,096	2,115	2,131	1,929	1,719	1,756	1,713	1,518	1,410
South Carolina	4,685	4,731	4,946	5,204	5,548	6,278	6,832	7,448	7,253	7,346	7,549	7,425	7,119
South Dakota	3,124	3,132	3,211	3,111	3,069	3,130	3,089	3,084	2,913	2,848	2,734	2,607	2,567
Tennessee	8,811	8,966	9,173	9,762	10,568	12,144	13,396	13,668	12,943	12,769	12,673	12,431	11,889
Texas	41,010	45,098	46,624	46,838	48,199	52,137	55,512	56,962	52,912	53,802	52,787	51,825	50,987
Utah	5,362	5,614	5,486	5,409	5,200	5,293	5,422	5,407	5,175	5,017	4,809	4,582	4,488
Vermont	2,280	2,235	2,166	2,091	2,067	1,996	1,987	1,871	1,785	1,702	1,596	1,554	1,445
Virginia	13,611	14,040	13,929	13,940	14,130	14,924	15,606	15,668	15,006	15,080	14,950	14,534	14,022
Washington	9,540	10,006	10,010	9,980	9,281	9,106	9,180	9,023	8,548	8,114	7,904	7,754	7,584
West Virginia	3,146	2,961	2,855	2,816	2,745	2,778	2,859	2,730	2,357	2,296	2,182	2,065	1,944
Wisconsin	12,315	12,736	12,714	12,525	12,427	11,989	11,861	11,420	10,735	10,500	10,021	9,454	8,875
Wyoming	1,742	1,883	1,882	1,742	1,707	1,656	1,677	1,578	1,394	1,384	1,251	1,118	1,127
UNITED STATES	657,333	678,265	683,861	691,289	702,897	730,161	752,212	747,436	693,325	688,728	670,887	639,742	599,018

Source: U.S. Census Bureau Nonemployer Statistics

## VIII. Endnotes

- 1 The estimate is based on the Non-Employer Statistics data collection program maintained by the Census Bureau. The estimate includes all child care (NAICS 6244) business entities, either corporate or non-corporate, that generate revenue but do not have employees. Most are operated by self-employed proprietors operating sole proprietorships with no employees. Non-employers in the child care sector are discussed in detail in a later section of the report.
- 2 A few formal care arrangements including babysitters and nannies are also excluded.
- 3 Estimates for children served through CCDF suggest that 15 percent of children are served by child care providers that are either unregulated (14 percent) or the regulatory status is unknown (1 percent) in FY2016.
- 4 ECPP survey results suggests that 9.9 percent of children ages 5 and under and not yet in kindergarten who receive nonparental care on a regular basis are cared for in a program run by a church, synagogue, or other religious group. See: [https://nces.ed.gov/nhes/data/2016/cbook\\_ecpp\\_pu.pdf](https://nces.ed.gov/nhes/data/2016/cbook_ecpp_pu.pdf)
- 5 For example, see the following detailed research brief from the National Research Center on Hispanic Children and Families evaluating the composition of twelve surveys in place since 2005: “Using Existing Large-Scale Data to Study Early Care and Education Among Hispanics: Families’ Utilization of Early Care and Education.” by Julia Mendez, Danielle Crosby, and Heather Helms. March 2016. Available online at: <https://www.childtrends.org/wp-content/uploads/2016/02/ECE-Series-Brief-No.-3.pdf>
- 6 The results from the ECPP survey presented in the report are restricted to children in the sample under the age of 5.
- 7 Details on the National Household Education Surveys Program (NHES) Early Childhood Program Participation (ECPP) surveys are available online at: [https://nces.ed.gov/nhes/surveytopics\\_early.asp](https://nces.ed.gov/nhes/surveytopics_early.asp)
- 8 The ECPP survey contains data from surveys completed with the parents or guardians of 5,844 children age 6 or younger not yet enrolled in kindergarten. For all NHES:2016 topical surveys, eligibility was determined by the individual’s age as of December 31, 2015 See: [https://nces.ed.gov/nhes/surveytopics\\_early.asp](https://nces.ed.gov/nhes/surveytopics_early.asp)
- 9 Details on the Survey of Income and Program Participation (SIPP) are available online at: <https://www.census.gov/sipp/>
- 10 The NSCH surveys collects no other child care-related information about the child or parents.
- 11 The slightly higher share in nonparental care in the ECPP survey is consistent with a slightly younger population (ages 0 to 4) of children who tend to be in care at a higher rate relative to the NSCH survey (ages 0 to 5).
- 12 The survey asks whether each child in the surveyed household was enrolled in any form of paid child care during the survey period. This measure of child care usage is broader than the definition of organized child care derived from the SIPP survey and summarized in Figures 1, 3, and 6. The CPS captures all forms of paid care, including relatives who receive pay to care for related children. Several child-care specific questions are asked only as part of the March Supplement to the Current Population Survey. The March Supplement is also known as the Annual Social and Economic Supplement.
- 13 Reduced sample sizes when examining the two age group categories will almost certainly contribute some added variation in the smallest states.
- 14 See: Bureau of Labor Statistics. “Employment Characteristics of Families.” Table 4. Available online at: <https://www.bls.gov/news.release/famee.t04.htm>
- 15 See: Bureau of Labor Statistics. “Employment Characteristics of Families.” Table 6. Available online at: <http://www.bls.gov/news.release/famee.t06.htm>
- 16 See: Child Trends Databank. 2016. “Births to unmarried women.” Available online at: <https://www.childtrends.org/indicators/births-to-unmarried-women>
- 17 For a review of empirical estimates of the elasticity of employment with respect to child care costs, see: Ziliak, James P., Charles Hokayem, and Bradley Hardy. June 2008. “Child Care Subsidies and the Economic Well-Being of Recipient Families: A Survey and Implications for Kentucky.” University of Kentucky. Center for Poverty Research. For a more recent literature review relating child care costs to parental employment, see: Morrissey, Taryn W. 2017. “Child Care and Parental Labor Force Participation: A Review of the Research.” *Review of Economics of the Household* 15 (1): pp. 1-24.
- 18 The simple correlation between child care cost and cost of living is highest for children under 5 years of age in both child care centers (0.78) and family child care homes (0.75). The cost of care for school-age children is slightly less correlated to cost of living than pre-school care but remains far from a uniform national market. The simple correlation of child care costs with overall state prices is only 0.41 for school-age children. Other factors are at work in the cost of care for older children that make the market appear much more national in scope.
- 19 Regional Price Parity (RPP) indexes produced by the Bureau of Economic Analysis measure geographic differences in the price levels of consumption goods and services relative to the national average. A value of 100.0 for a state suggests that its overall price level matches the national price level. RPPs are especially useful for comparing the purchasing power of income across the states over time. In 2012, the District of Columbia’s RPP (115.9) was higher than that of any state other than Hawaii. The states with the highest RPPs were Hawaii (118.4), New York (115.6), California (114.4), and New Jersey (113.2). Mississippi (86.4), Alabama (86.6), Arkansas (86.9), West Virginia (87.6), and Kentucky (87.8) had the lowest RPPs among the States. States with high (low) RPPs typically have relatively high (low) price levels for rents. States with RPPs closest to the national average price level were Rhode Island (99.6), Florida (99.7), Oregon (99.8), Delaware (100.2), and Vermont (101.6). A broader discussion of RPPs is available online at: [http://www.bea.gov/newsreleases/regional/rpp/rpp\\_newsrelease.htm](http://www.bea.gov/newsreleases/regional/rpp/rpp_newsrelease.htm)
- 20 Social Services Block Grant (SSBG) data on child care spending is published with an extended lag. FY2014 is the most recent year for which detailed data on child care spending is available.
- 21 CCDF Discretionary funding is subject to Congressional appropriation each year. CCDF Mandatory funding is a fixed amount of ongoing funding based upon the amount received in a prior base year. States can also receive CCDF Matching funds if they continue to maintain state-provided Maintenance of Effort funding as determined in a prior base year and if they commit additional state funds to draw down Matching funds. A state can elect to transfer up to 30 percent of TANF block grant funds to the CCDBG program. Transferred TANF funds are treated as CCDF Discretionary funding and become subject to CCDF rules. Federal TANF Expenditures on Assistance and Non-Assistance are available as block grants to the states if they continue to maintain state-provided Maintenance of Effort funding as determined in a prior base year. Non-Assistance includes spending not considered direct Assistance under TANF and that doesn’t fit into any other reporting category. For TANF data, see: <https://www.acf.hhs.gov/ofa/resource/tanf-financial-data-fy-2017>

22 SSBG funding includes both the allocation of SSBG funding to child care and TANF transfer to SSBG for child care assistance. Twenty states used SSBG funding for child care assistance in FY2014. Only three states used more than \$10 million of SSBG funding for child care assistance: California, Connecticut, and Pennsylvania. California accounted for two-thirds (\$207.3 million) of all SSBG funding used for child care assistance in FY2014.

23 The TANF program has four stated purposes that reflect the demographic challenges faced by many families: 1) provide assistance to needy families so that children can be cared for in their own homes; 2) reduce the dependency of needy parents by promoting job preparation, work and marriage; 3) prevent and reduce the incidence of out-of-wedlock pregnancies; and 4) encourage the formation and maintenance of two-parent families. Some funding provided to the states through the TANF program can be transferred to the Child Care and Development Block Grant (CCDBG) program. These transfers to CCDBG help low-income families, families receiving public assistance, and those transitioning from public assistance pay for the cost of child care services. CCDBG assistance is administered through vouchers or certificates which can be used by parents at the provider or program of their choice.

24 All counts are “adjusted” numbers of families and children, unless otherwise indicated. These “adjusted” numbers represent the number funded through CCDF only (which includes Federal Discretionary, Mandatory, and Matching Funds; TANF transfers to CCDF; and State Matching and Maintenance of Effort Funds). The “adjusted” number is the raw or “unadjusted” number reported by the State multiplied by its pooling factor, as reported on the ACF-800. This report takes this factor into consideration in calculating the “adjusted” numbers or percentages. See: <https://www.acf.hhs.gov/occ/resource/preliminary-fy2016>

25 See: <https://www.acf.hhs.gov/occ/resource/fy-2016-preliminary-data-table-16>

26 The exact share of the Child and Dependent Care Tax Credit that goes to dependent care rather than child care is not reported by the Internal Revenue Service and remains unknown. It is believed that the great majority (>90 percent) of the credit is granted for child care expenses.

27 Along with child care for children under the age of 13, the credit covers a spouse or other person who is physically or mentally incapable of self-care and lived with you for more than half the year. While the great majority of the credit is believed to be for child care services, the exact share of the credit that is paid for child care versus other dependent care is unknown. For program details see: <http://www.irs.gov/taxtopics/tc602.html>

28 The tax credit is not refundable for those low-income taxpayers with no net Federal tax payments to offset.

29 A detailed description of credits at the state level is available online at: <http://www.taxcreditsforworkersandfamilies.org/state-tax-credits/#1468434105770-44f9c6c5-52e0>

30 In calculating total employment in the industry, we treat each non-employer establishment as the equivalent of one job. Some non-employer establishments are part-time businesses, while others operate the business as their full-time occupation.

31 Estimates for children served through CCDF suggest that 23 percent of children received care in either the child’s home or in a family child care home, 76 percent received care through either a child care center or group home, and 1 percent was unknown in 2013.

32 Determining the full size and scope of the U.S. child care sector is complicated by the fact that non-employer child care providers are not covered by most Federal employment and wage surveys. The annual Census survey of non-employers provides most of the detailed information available describing these firms.

33 A reported 595,822 of the 599,018 non-employer child care establishments are operated as sole proprietorships, with only about 3,200 organized as either corporations or partnerships. Those organized as corporations or partnerships are significantly larger than sole-proprietorships, with average revenue of about \$100,000 annually. Nevertheless, they remain small relative to child care providers with employees. In estimating total employment within the industry, we assume that each non-employer establishment is equivalent to one job for a single sole proprietor.

34 Advocate groups typically define microbusinesses as an organization with less than five employees, small enough to require little capital (\$35,000 or less) to get started.

35 An estimated 59.4 percent of revenue is earned as proprietor income. This estimate is derived from 2016 Economic Census data reported for the U.S. child care sector and the IMPLAN input-output model.

36 Child care program closure data from the state of Connecticut suggests that the closure of family care homes may be occurring at a faster rate than suggested by Census establishment data. Closure data is available on line at: <https://www.211childcare.org/reports/child-care-program-closure-report/>

37 For example, see: a recent discussion by the Minneapolis Fed of the ongoing shift from home-based care to child care centers in the ninth Federal Reserve District at: <https://www.minneapolisfed.org/publications/fedgazette/child-care-availability-raises-concerns>; and a recent legislative review of the shift in Minnesota: <https://www.lcc.leg.mn/tfcc/meetings/Child%20Care%20Report%202017.pdf>

38 Child care industry revenue per capita provides an alternative measure of industry size across states. Nationally, the U.S. child care sector produced \$146 in revenue per person in 2016. This measure ranges from a high of \$251 per capita in Washington D.C. to a low of only \$63 per capita in Utah. High cost-of-care states, including Massachusetts, New Jersey, Delaware, Rhode Island, Connecticut, and New York plus the District of Columbia, sit atop the rankings when measured by revenue produced per capita.

39 Compensation is the sum of wage and salary accruals and supplements to wages and salaries. Supplements to wages and salaries consist of employer contributions for employee pension and insurance funds and employer contributions for government social insurance

40 Bureau of Economic Analysis defines gross operating surplus to include consumption of fixed capital (CFC), proprietors’ income, corporate profits, and business current transfer payments.

41 Industry revenue in 2016 is assumed to equal total output for the child care sector. Purchase coefficients are estimated from the U.S. input-output table for 2010 provided by the Bureau of Economic Analysis. The multipliers are based on 2010 national annual input-output data and 2016 regional data.

42 The share of industry output devoted to taxes on production and imports, less subsidies is derived from the 2010 U.S. input-output produced by BEA.

43 State-level input-output multipliers are rarely derived from surveys of actual purchase behavior. This process is cost prohibitive. Instead, survey data of purchases by the child care industry at the national level is adjusted using information that reflects the unique structure of the region in question.

44 The child care industry is defined as NAICS sector 6244.



45 The share of purchases made from outside the region are equal to 1-RPC. The more purchases made in-state the larger the estimated multiplier. The RIMS II multipliers used in this report are regionalized using location quotients. LQs show the share of activity within an industry at the local level relative to the activity at the national level. An LQ of 1 suggests that the industry presence in the local region is the same as the national level. An LQ less (greater) than one suggests that the industry share in the local region is smaller (larger) than the national share. Other input-output models use varying approaches to regionalizing multipliers at the state level. IMPLAN uses either a trade-flow model or an econometric estimation.

46 Caution must be exercised when using input-output multipliers to estimate the total economic activity 'supported' by an existing industry or firm. Input-output multipliers are designed to predict the gross effects resulting from only a small, incremental change in the current state of a regional economy. More specifically, the estimates provided for the child care industry reflect input-output model predictions of the incremental impact that would result if the \$41.5 billion in industry revenue in the existing child care industry was introduced to the respective state economies producing the revenue. The realized impact is determined by the overall adjustment process that would take place in each state as child care industry activity expands. These estimates also do not provide a net measure of economic impact. For an accessible discussion of how multiplier-based estimates of spillover effects are frequently misused and often overstate resulting spillover effects, see: Hughes, David W. 2003. "Policy Uses of Economic Multiplier and Impact Analysis." *Choices*. 2nd Quarter. Available online at: <http://www.choicesmagazine.org/2003-2/2003-2-06.htm>. For additional discussion of the variation in multipliers across regions, see: Olfert, M.R. and J. C. Stabler (1994), "Community Level Multipliers for Rural Development Initiatives." *Growth and Change*, 25: 467-486.

47 A slightly different outcome would result by using multipliers derived specifically at the national level.

48 Output in the child care sector is assumed to equal revenue.

49 Estimates are derived from the Current Population Survey 2018 Annual Social and Economic (ASEC) Supplement administered by the Census Bureau.

50 Some prepared tables on part-time labor force participation are available online at: <https://www.bls.gov/web/empst/cpseea25.htm>

51 See: <https://www.bls.gov/opub/mlr/2018/article/pdf/who-chooses-part-time-work-and-why.pdf>

52 Child and Adolescent Health Measurement Initiative. 2016-2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved December 8, 2018 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org). See: <https://childhealthdata.org/browse/survey/results?q=5568&r=1>

53 Labor force participation has long been viewed as a potential source of added economic growth (Aaronson et al. 2014). More efficient employment of existing labor resources directly increases the potential output of a region. This view was substantiated by the long-run influx of women into the U.S. labor force during much of the Post-World War II period. Common efforts to increase labor force participation rates include subsidized job training following mass layoffs, high-school completion programs, targeted employment tax credits, and expanded child care availability. See: Aaronson, Stephanie, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher Smith, and William Wascher. "Labor Force Participation: Recent Developments and Future Prospects." Fall 2014. *Brookings Papers on Economic Activity*.

54 A thorough review of the literature and empirical analysis of labor market factors and their effect on poverty rates is found in: Hoynes, Hilary W., Marianne E. Page, and Ann Huff Stevens. "Poverty in America: Trends and Explanations." *Journal of Economic Perspectives*, Volume 20, Number 1. Winter 2006. pp. 47-68. Available online at: [http://poverty.ucdavis.edu/sites/main/files/file-attachments/stevens\\_2006jep.pdf](http://poverty.ucdavis.edu/sites/main/files/file-attachments/stevens_2006jep.pdf)

55 Income is adjusted for cost-of-living to avoid potential distortions in those states with an unusually high or low cost-of-living. The same strong relationship is found when using both nominal median household income and per capita personal income.

56 The exact process by which education raises income levels remains an area of intense academic debate, with several conduits proposed. Suggested channels include the positive effects higher levels of education exert on worker productivity (Delong et al. 2003); entrepreneurial activity and creativity (Glaeser and Saiz, 2004); ability to innovate new ideas and processes or adopt them elsewhere (Benhabib and Spiegel, 1994; Barro, 1997); and degree of worker adaptability to transfer skills and knowledge across industries (Bauer et al. 2006). Regardless of the precise source, the historical link from education to income remains strong in theory and empirically (Yamarik 2010). See: Delong J. B., Goldin C, Katz L. F. 2003. "Sustaining U.S. economic growth." In: Aaron H (ed) *Agenda for the nation*. The Brookings Institution, Washington, pp 17-60; Glaeser, E. and A. Saiz. 2004. "The Rise of the Skilled City," *Brookings-Wharton Papers on Urban Affairs*; Benhabib, Jess and Mark M. Spiegel "The role of human capital in economic development Evidence from aggregate cross-country data." *Journal of Monetary Economics* 34 (1994) 143-173; Barro, R. 1997. *Macroeconomics*. Cambridge, MA: MIT Press; Bauer, Paul W., Mark E. Schweitzer, and Scott Shane. 2006. "State Growth Empirics: The Long-Run Determinants of State Income Growth." *Federal Reserve Bank of Cleveland Working Paper* 06-06; and Yamarik, Steven. 2010. "Human capital and state-level economic growth: what is the contribution of schooling?" *The Annals of Regional Science*. August 2011, Volume 47, Issue 1, pp 195-211. Granger, C. and P. Newbold. 1974. "Spurious Regressions in Econometrics." *Journal of Econometrics* 2 (2): 111-120.

57 See: Rickman, Dan S. and Mark C. Snead. "A Regional Comparative Static CGE Analysis of Subsidized Child Care." *Growth and Change*. Mar. 2007. Vol. 38, No. 1, pp. 111-139. The study uses a custom computable general equilibrium (CGE) model of the state of Oklahoma to evaluate the distributional economic impacts of child care subsidies for low-skilled, low-wage workers.

58 The elasticity of supply response to real wages equals 0.8 for low-skilled labor and 3.0 for high-skilled labor.

59 For a recent evaluation of the wage gains realized by Oklahoma CareerTech full-time program completers, see: Snead, Mark. 2013. "Cost-Benefit Analysis of Career Majors (FY11)." Oklahoma Department of Career and Technology Education.

60 This finding is consistent with the empirical results in Bartik (2002) for welfare reform that potential losers from subsidies include low-skilled workers not receiving the subsidies but who face increased competition in the labor market. See: Bartik, Timothy J. 2002. "Spillover effects of welfare reforms in state labor markets." *Journal of Regional Science* 42(4): 667-701.

61 A non-distortionary reduction assumes government spending is reduced proportionately across all categories of spending.







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