

COVID-19 Special Investigation Report: The Childcare Industry in New England

Prepared August 2020



DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

This material is based upon work supported under Air Force Contract No. FA8702-15-D-0001. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the U.S. Air Force.

© 2020 Massachusetts Institute of Technology.

Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.

This report is supported by



with certain data and findings supported by
Massachusetts Institute of Technology Lincoln Laboratory

This report has been prepared for the exclusive use and benefit of the addressees(s) and solely for the purpose for which it is provided. Unless the Global Resilience Institute provides express prior written consent, no part of this report should be reproduced, distributed, or communicated for an alternative purpose from which it is intended, nor to any third party in respect of this report.

Publication Citation: Modestino, A.. (2020). The Childcare Industry in New England. COVID-19 Special Investigation Report. GRI Whitepaper Series 2020-5. globalresilience.northeastern.edu/publications/whitepaperseries/covid-19-special-investigation-report-2020-5

About the Author

Alicia Modestino

*Associate Professor, Public Policy and Urban Affairs and Economics;
Research Director, Dukakis Center*

Alicia Sasser Modestino is an Associate Professor with appointments in the School of Public Policy and Urban Affairs and the Department of Economics at Northeastern University. Dr. Modestino also serves as the Research Director of the Dukakis Center for Urban and Regional Policy. She is also a nonresident fellow at the Brookings Metropolitan Policy Program and an affiliate of the Abdul Latif Jameel Poverty Action Lab (J-PAL) at MIT. Previously, Modestino was a Senior Economist at the Federal Reserve Bank of Boston where she led numerous research projects on regional economic and policy issues.



Dr. Modestino's current research focuses on labor and health economics including changing skill requirements, youth development, healthcare, housing, and migration. Her work has been funded by the William T. Grant Foundation, the Russell Sage Foundation, the National Science Foundation, the Boston Foundation, the National Security Agency (NSA), and J-PAL. She has published in peer-reviewed publications including Review of Economics and Statistics, Journal of Human Resources, Labour Economics, Health Affairs, Journal of Policy Analysis and Management, and Regional Science and Urban Economics. Dr. Modestino's research has been covered extensively in the media including the Wall Street Journal, the Washington Post, Bloomberg, the Christian Science Monitor, the Boston Globe, Politico, and Vox. She has appeared on NPR's On Point, WBUR's Radio Boston, WCVB's CityLine, NBC News, and FOX25 News.

Modestino holds both a master's degree and a Ph.D. in Economics from Harvard University, where she also served as a doctoral fellow in the Inequality and Social Policy Program at the Kennedy School of Government.

About the Global Resilience Institute

Based at Northeastern University in Boston, MA, the Global Resilience Institute's (GRI) research and educational mission is to develop and deploy practical and innovative tools, applications, and skills that drive social and technical changes, which strengthen the capacity of individuals, communities, systems, and networks to adapt to an increasingly turbulent world. Launched in 2017, GRI is the world's first university-wide institute to respond to the resilience imperative. Today, GRI undertakes multi-disciplinary resilience research and education efforts that draw on the latest findings from network science, health sciences, coastal and urban sustainability, engineering, cybersecurity and privacy, social and behavioral sciences, public policy, urban affairs, business, law, game design, architecture, and geospatial analysis. GRI works in close partnership with industry, government, communities, and non-governmental organizations, as well as engages in external outreach to inform, empower, and scale bottom-up efforts that contribute to individual and collective resilience.

Executive Summary

The COVID19 pandemic resulted in an unprecedented shock to childcare arrangements—both formal and informal—most notably with the abrupt closure of daycares and schools in March 2020. At the beginning of the summer, many daycares and summer camps still had not re-opened due to the challenges of complying with state-imposed restrictions. Given that daycares already operate on slim profit margins, these restrictions mean either steep increases in tuition for families or going out of business. In addition, parents are left wondering if informal or unpaid caregiving arrangements with relatives, such as grandparents, are safe—particularly in states with high and/or resurging COVID-19 caseloads.

In New England, the childcare industry is an important part of the regional economy. As of 2017, the industry produced \$3.1 million in revenue in 2017 and employed over 80,000 workers ranging from 5,229 in Rhode Island to 39,107 in Massachusetts. Total earnings across all six states summed to \$1.7 million in 2017 with earnings per worker ranging from \$17,411 in Maine to \$22,768 in Massachusetts. This 1.7 million in direct earnings in New England is estimated to produce an additional \$1 million in indirect and induced earnings throughout the region. Moreover, New England's rate of childcare usage is above the U.S. average (53.9%) in all six New England states, ranging from a low of 55.0% in Rhode Island to 69.7% in Massachusetts.

Impact of COVID-19 on Childcare

- **Childcare Industry:** Due to closures and plummeting enrollments, the childcare industry has suffered an enormous loss of revenue. A national survey of providers in April found that just 11 % of providers could survive a closure of an indeterminate length of time without government support—and only 27 % could survive a closure of a month. In New England, roughly 40 percent of Rhode Island providers that responded to a Department of Human Services survey said they are in danger of closing within a matter of months.

...roughly 40 percent of Rhode Island providers that responded to a Department of Human Services survey said they are in danger of closing within a matter of months.

- **Childcare Workers:** Like other industries in the service sector, the childcare industry has suffered large job losses due to the pandemic. Between March and April, 351,500 child-care workers lost their jobs with just under one-third of those jobs having been recovered in May and June. Given that nearly half of all childcare workers were eligible for public assistance even prior to the pandemic, it is unlikely that they have sufficient savings to offset the loss of wages from being laid off or furloughed. For example, in New Hampshire, the state provided an extra \$5 per hour in hazard pay which some employers matched with an additional \$5 to be able to entice workers to stay on rather than take the enhanced unemployment benefits.

Between March and April, 351,500 child-care workers lost their jobs with just under one-third of those jobs having been recovered in May and June.

- **Parents:** For working parents, the continued uncertainty surrounding childcare and in-person instruction for school-aged children is unprecedented, with a multitude of consequences for family life, education, and earnings. Among working parents who reported needing care, nearly two-thirds (63%) of parents had difficulty finding childcare, including 33% who found it very difficult—nearly double what parents reported just six months ago. A recent survey conducted by Northeastern University between May 10 and June 22, 2020 revealed that 13.3% of working parents report that they have lost a job or reduced their hours due to a lack of childcare. On average, parents are losing a full day of work (8 hours) each week to address their children's needs during the pandemic for a total of 15 hours per week per household.
- **Children:** The effect of childcare closures on the children who rely on their providers for stable, nurturing care is significant. For example, in Massachusetts, 84% of parents said that they were “worried that my child is missing out on important developmental opportunities (socialization and learning)” while daycares have been closed.

On average, parents are losing a full day of work (8 hours) each week to address their children's needs during the pandemic for a total of 15 hours per week per household.

Policy Considerations

Like many sectors of the economy, there are many pre-existing challenges that have been exacerbated by COVID-19. The pandemic has also created new long-term challenges.

- Margins have always been thin for providers but the imposition of restrictions on re-opening will likely mean that many providers will go out of business. These closures could lead to the loss of as many as 450,000 childcare slots nationally, undermining both the ability of parents to return to work and efforts to reopen the economy.
- Daycare was expensive for families prior to the pandemic but is likely to be even more so as the number of slots decreases and the cost per child increases due to space constraints, cleaning, and inability to share toys/supplies. The New England states have some of the highest costs for childcare.

In New England, where female labor force participation is higher, supporting the childcare industry is even more critical to preserving women's labor force opportunities compared to other regions.

- The burden of childcare has typically fallen disproportionately on women when their family cannot find or afford childcare, and this has been exacerbated by the pandemic. A recent survey of working parents conducted by Northeastern University finds that among women who reported losing a job during the pandemic, 25% say it was due to a lack of childcare. In New England, where female labor force participation is higher, supporting the childcare industry is even more critical to preserving women's labor force opportunities compared to other regions.

- Even before the coronavirus pandemic, black and brown families were more likely to live in childcare deserts with few childcare options. For example, according to Child Aware, nearly 1 in 3 children under age 6 in working families do not have access to licensed child care in Suffolk County, Massachusetts (e.g., Boston). In addition, the Northeastern University survey found that households that were low-income, less educated, and nonwhite were less likely to have any type of back-up childcare during the pandemic.

To date, recovery efforts have attempted to put a Band-Aid on a gunshot wound.

- Barriers to the application process for the Paycheck Protection Program (PPP) and the program itself have hampered its effectiveness in addressing the needs of the childcare industry. Only 53% of childcare centers and 25% of family childcare providers applied for a PPP loan and of those, only half of were approved for a loan—roughly equivalent to one-quarter of the childcare market. Even among those daycare providers who were fortunate to receive a PPP loan, they will be lucky to break-even as they re-open under the new public health guidelines. One daycare provider who owns multiple centers in Massachusetts shared their detailed budget which showed a financial swing from a net profit of \$18,964 in March to a net loss of -\$58,765 in July.

Only 53% of childcare centers and 25% of family childcare providers applied for a PPP loan and of those, only half of were approved for a loan...

- Although a federal relief package in March provided an additional \$3.5 billion for the Childcare Development Block Grant (CCDBG) for emergency support, the funding is not enough to keep childcare programs afloat for long and did not go to all types of providers. For example, in Massachusetts CCDBG funds will cover only \$2,200 per month for eligible childcare centers in July and August. In the absence of substantial new funding, states will need to make tough decisions about how to allocate the limited CCDBG dollars. For example, during the Great Recession in 2008, funding for 120,000 childcare slots was cut in a single year.

...in Massachusetts CCDBG funds will cover only \$2,200 per month to eligible childcare centers in July and August.

- Although Congress expanded unemployment insurance benefits under the CARES Act to cover parents who had no choice but to stay home to care for their children while schools and day cares are closed, people have had difficulty accessing those benefits. Congress also enacted a temporary national paid leave program but few parents seem to know about it or have accessed it. Only one New England state, Rhode Island, already had a paid leave program in place prior to the pandemic.

Only one New England state, Rhode Island, already had a paid leave program in place prior to the pandemic.

Interconnecting Issues

Childcare is a critical piece of our economic infrastructure that enables parents to “get to work” just like roads and bridges do for commuters. A full economic recovery simply cannot happen if children do not physically return to schools and childcare programs.

- According to the American Community Survey, about one-third of workforce has a child under 14 in their household resulting in 50 million workers who may be seeking childcare as the economy re-opens this summer—of whom 30% have children under the age of 6.
- The obstacles that childcare imposes on workers during the COVID-19 crisis is widespread and not limited to just a few key industries or certain geographic areas. Thus, addressing childcare obligations as part of the nation’s “re-opening” strategy is vital for every industry and every state.

- Although workers might find alternatives to organized childcare, the aggregate labor supply effects are so large it will be necessary to address the needs of working parents when developing plans for restarting the economy.
- Even prior to the pandemic, American businesses lost an estimated \$12.7 billion annually because of their employees’ childcare challenges. Nationally, the cost of lost earnings, productivity, and revenue due lack of childcare totaled \$57 billion each year.

Recommendations

It is imperative that policymakers in New England and at the federal level act quickly to put the childcare industry on life support until the pandemic can be brought under control. Otherwise, it is likely that there will be little left of the childcare system to support working parents who are a necessary component of the nation’s future economic well-being.

It is imperative that policymakers in New England and at the federal level act quickly. . .Otherwise, it is likely that there will be little left of the childcare system ...

- **The childcare industry is an essential component of the New England and U.S. economic recovery and should receive a large-scale and immediate bail out.** One analysis from the Center for Law and Social Policy (CLASP) estimates that it will cost about \$9.6 billion a month, for a total of more than \$50 billion. Given that the cost of lost earnings, productivity, and revenue due to the childcare crisis that existed even before the pandemic cost an estimated \$57 billion each year, such an investment would pay for itself in the near-term.
- **Absent a full-scale bailout, the government should target the remaining PPP loan dollars towards the childcare industry and eliminate barriers for family daycare providers.** These daycare operators are sole proprietors, some of whom may be unbanked, and additional oversight is needed to ensure that banks are not overly restrictive in their lending requirements.
- **As daycares re-open in New England, we should be using this opportunity to learn about transmission of COVID19 among children and which public health measures are the most effective at limiting the spread of the virus.** During the summer and fall, we should be performing random testing at daycares and day camps that are running under different state restrictions to make informed decisions about which restrictions need to remain in place (e.g. masks) and which could be lifted (e.g., class sizes).
- **Once we have learned more about which public health measures are necessary to maintain safety in daycares, New England policymakers should consider loosening other restrictions that are less effective but costly to providers and developmentally inappropriate for children.** We should acknowledge that COVID-19 public health restrictions are intended to mitigate, rather than eliminate, risk.
- **Employers need to be part of the solution and it may be necessary to impose mandates that provide working parents with the flexibility and job stability needed to weather the pandemic for the long-term.** Maintaining or even expanding pre-existing on-site daycares and expanding financial support for in-home care provided by a relative, babysitter, or nanny can help expand caregiving options for working parents.
- **We need to extend the supports put in place by the CARES Act and the FFCRA and ensure that they can be accessed by working parents.** Although these supports do not solve the childcare crisis, they do replace some portion of the income lost due to the lack of access to affordable daycare. Absent federal action, states should provide childcare grants directly to working parents to cover the cost of hiring in-home or family daycare.

...states have imposed even stricter requirements on daycare and school re-openings than in other parts of the country, pushing operating costs even higher.

Although it may seem that the New England childcare industry would be in a better position to weather the pandemic due to the relatively low COVID-19 caseloads, states in the region have imposed even stricter requirements on daycare and school re-openings than in other parts of the country, pushing operating costs even higher. Moreover, the region has a higher female labor force participation rate and relies more heavily on paid daycare such that the impact on re-opening the New England economy is even greater than in other parts of the country.

Table of Contents

1. Introduction and Context	10
1.1 Overview and Significance of Childcare	10
1.2 Importance to the Economy.....	16
1.3 How COVID-19 Has Impacted Childcare	19
2. Policy Considerations for Recovery	23
2.1 Preexisting Challenges exacerbated by COVID-19	23
2.2 New Challenges and Opportunities that have been Revealed or Caused by COVID-19	25
2.3 Perspective on Existing Recovery Efforts	25
3. Interconnecting Issues	28
4. Recommendations	30
Works Cited	34

COVID-19 Special Investigation Report: The Childcare Industry in New England

1. Introduction and Context

The U.S. childcare system is an essential component of the economic infrastructure supporting the nation's work force. Understanding the role of childcare in the economy, including the demand for and supply of services that shape the childcare industry is vital to forming effective childcare policy in response to the COVID-19 pandemic. This includes acknowledging pre-existing challenges such as the slim operating margins for providers, the lack of affordable care for families, the disproportionate burden that falls on women, and disparities in access for families in black and brown communities. In addition, the disruption caused by the pandemic has raised new concerns about the long-term viability of the childcare industry and the subsequent consequences for labor force participation and economic growth.

...the disruption caused by the pandemic has raised new concerns about the long-term viability of the childcare industry and the subsequent consequences for labor force participation and economic growth.

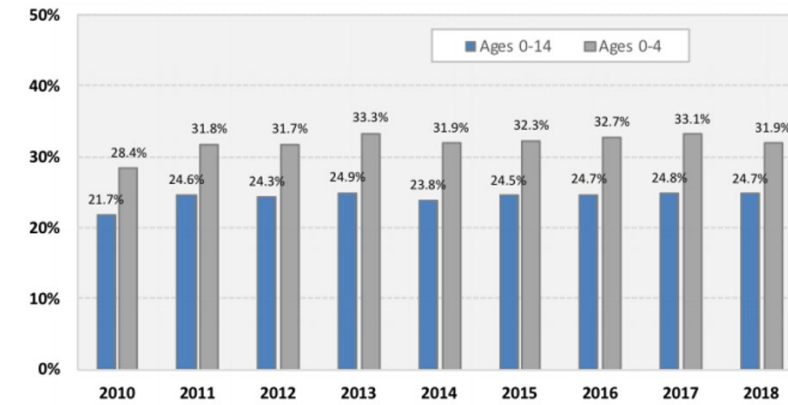
This paper provides an overview of how the childcare industry has been affected by the COVID-19 pandemic and offers policy recommendations for supporting this vital component of the nation's economic recovery. A review of the childcare situation in New England is also included. Recommendations include increased funding for providers, a data-driven review of the costs and benefits of public health restrictions, and the extension of individual supports for working parents who need to take time out of the labor force to care for children. Existing recovery efforts to date have largely put a band-aid on a gunshot wound and it is imperative that policymakers act quickly to put the childcare industry on life support until the pandemic can be brought under control. Without massive public investment, the childcare system is likely to be decimated and unable to support working parents who comprise roughly one-third of the U.S. workforce and are a necessary component of the nation's future economic well-being.

1.1 Overview and Significance of Childcare

While childcare can encompass a broad set of activities, here I define it more narrowly as the care of children by a day-care center, babysitter, or other provider while parents are working. Even within this definition, there is considerable variation in childcare arrangements from paid arrangements at daycare centers, summer camps, family in-home day-care providers, and nannies to unpaid arrangements with family and friends who provide care on a regular basis. Children are typically aged 6 weeks to 14 years and care may be provided year-round, during the school year, or during the summer.

The availability of paid childcare has played an increasingly important role in allowing parents with children to remain in the labor force. According to the U.S. Current Population Survey, nearly one-fourth (24.7 %) of children ages 14 and under were in a form of paid childcare in 2018. For preschoolers under the age of 5,

Figure 1. Share of U.S. Children in Paid Childcare by Age.



Source: U.S. Census Bureau, Current Population Survey – March Annual Social and Economic Supplement.

nearly one-third (31.9 %) are reported in paid care. Figure 1 shows that the share of children in paid care has increased slightly since 2010.

However, the use of organized (paid) childcare varies widely based on the demographic and economic characteristics of the child, mother, and household. For example, low-income families often use informal unpaid arrangements with family members or even trade childcare services with other families. Although these informal unpaid arrangements were also likely disrupted by stay-at-home orders, I will focus largely on organized (paid) caregiving in this paper for two reasons. First, despite shutdowns of daycare centers,

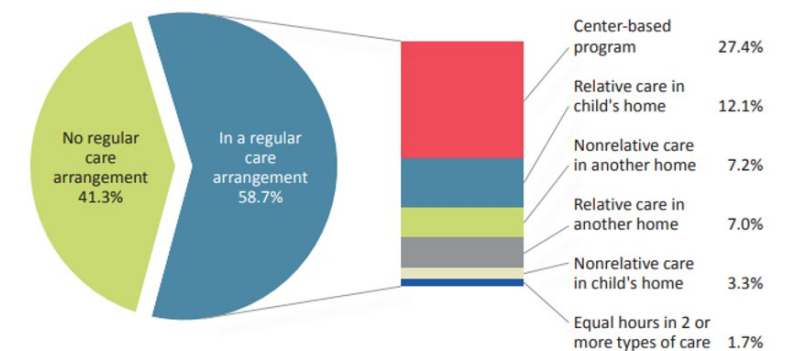
some informal arrangements might have persisted. Second, these informal arrangements are difficult to quantify with existing data.¹

Thus, any estimates of the disruption to childcare caused by COVID19 presented here should be considered a lower bound.

1. Prevalence and type of childcare arrangements pre-COVID19

The potential demand for childcare is large with roughly 60 million children ages 14 and under in the United States. About one-third (20 million) are preschoolers under the age of 5 and the remaining two-thirds (40 million) are school-aged children between the ages of 5 and 14.² Families often use multiple care arrangements that also differ greatly for preschool versus school-age children. Typically, younger children are placed in organized (paid) forms of childcare compared to the older group for which school becomes the primary care arrangement—except during the summer months.

Figure 2. Primary Childcare Arrangement for Preschoolers age 0-4



Source: Calculations based on the U.S. Dept. of Education – 2016 National Household Education Surveys, Early Childhood Program Participation (NHES-ECPP) as reported in “Childcare in State Economies. 2019 Update.” By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

Preschool Children: Figure 2 summarizes the most recent data from the Early Childhood Program Participation (ECPP) survey describing childcare arrangements for preschoolers under the age of 5. In 2016, about 11.8 million (58.7%) of children under age 5 participated in regular, weekly care arrangements with a non-parental provider.

Organized childcare facilities were the most prevalent source of childcare, used on a regular basis by one-third (33.0 %) of children under age 5. These include preschools, childcare centers (12.1 %), and pre-kindergarten programs. Care provided by relatives (i.e., grandparents, aunts/uncles, siblings) was the second most common childcare arrangement accounting for one-fourth (24.6 %) of all preschoolers. Other forms of nonrelative home-based care either at the child’s home or the home of a provider were used regularly by 13.4 % (2.7 million) of preschoolers.

Table 1. Nonparental Childcare Arrangements of Preschoolers Under 5 Years (2016)

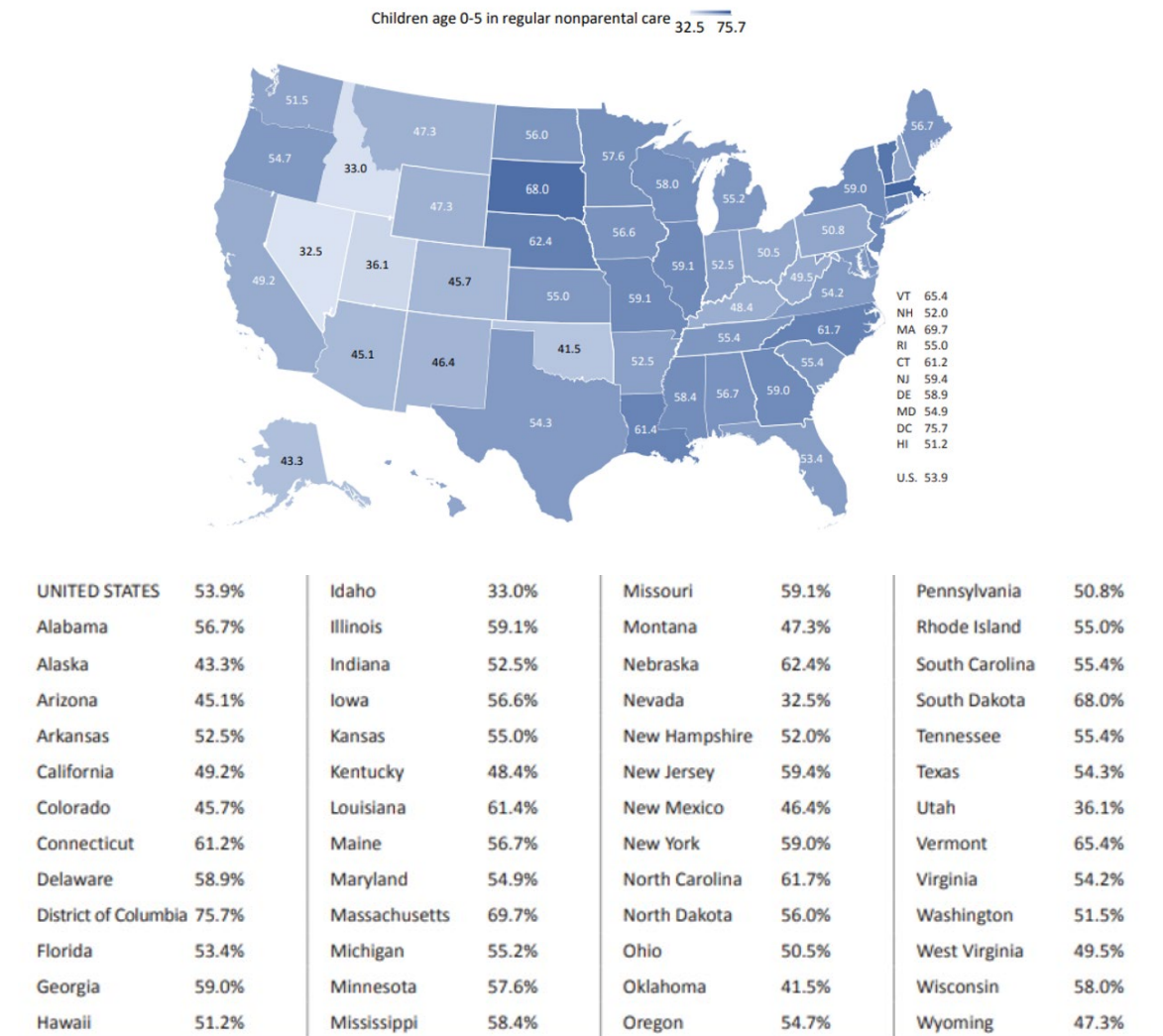
Care Arrangement	Number of Children	Percentage of Total Care Arrangements
Total Children under 5 years	20,059,111	100.0%
IN A REGULAR NONPARENTAL ARRANGEMENT	11,777,905	58.7%
Relative Care	4,936,767	24.6%
Grandparent	3,906,541	19.5%
Aunt/Uncle	622,550	3.1%
Sibling	179,239	0.9%
Other Relative	228,436	1.1%
Non-Relative Care		
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%
NO REGULAR NONPARENTAL ARRANGEMENT	8,281,205	41.3%

Source: Calculations based on the U.S. Dept. of Education – 2016 National Household Education Surveys, Early Childhood Program Participation (NHES-ECPP) as reported in “Childcare in State Economies. 2019 Update” by the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

It is important to note that the use of organized (paid) childcare varies considerably by state. Figure 3 shows that the percentage of children under age 5 in non-parental care for at least 10 hours per week ranged from a low of 32.5% in Nevada to a high of 75.7% in the District of Columbia. New England’s rate of childcare usage is above the U.S. average (53.9%) in all six New England states, ranging from a low of 55.0% in Rhode Island to 69.7% in Massachusetts. As such, it will be important to tailor any response the childcare disruptions caused by the COVID19 pandemic by geography, particularly in regions like New England.

School-Aged Children: A little less than half (49.1 %) of school-aged children receive some type of regular childcare. About 21.0% of all school-aged children participate in paid childcare on a regular basis such as that provided by childcare centers and home-based facilities.³ Again, the share of school-aged children in paid childcare is higher in New England ranging from 21.6% in Rhode Island to 34.9% in Vermont.

Figure 3. Share of Children Ages 0-5 in Non-parental Care for More than 10 Hours per Week



Source: Calculations based on the 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. CAHMI: www.cahmi.org as reported in “Childcare in State Economies. 2019 Update.” By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

2. Characteristics of families using paid childcare

The use of organized care varies by education level, household income, and racial composition. For example, two-thirds (67.5 %) of parents with a bachelor’s degree or higher use regular weekly care

versus less than half (44.6 %) of parents with a high school education or less (see Table 2). Relatedly, the share of children in regular care is approximately 50 % across all income ranges up to \$60,000 but rises sharply among children from higher income households. The usage of non-parental care is 11.7 % age points lower for Hispanic (49.8 %) versus white (61.5 %) non-Hispanic parents.

Table 2. Characteristics of Children Under the Age of 5 by Childcare Arrangement

	All Children		Regular Weekly Care		No Regular Weekly Care	
	Number		Number	%	Number	%
Education Level						
Less than high school	2,048,589		778,058	38.0%	1,270,530	62.0%
High school diploma	3,913,075		1,878,390	48.0%	2,034,685	52.0%
Some college	4,830,193		2,866,853	59.4%	1,963,341	40.6%
College graduate	5,606,829		3,529,297	62.8%	2,087,542	37.2%
Graduate/professional	3,660,424		2,735,307	74.7%	925,118	25.3%
Household income						
\$0 to \$10,000	1,332,205		583,184	43.8%	749,021	56.2%
\$10,001 to \$20,000	1,579,332		757,931	48.0%	821,401	52.0%
\$20,001 to \$30,000	1,876,370		851,409	45.4%	1,024,961	54.6%
\$30,001 to \$40,000	1,790,650		903,070	50.4%	887,914	49.6%
\$40,001 to \$50,000	1,701,650		878,911	51.7%	822,740	48.3%
\$50,001 to \$60,000	1,539,351		747,672	48.6%	791,680	51.4%
\$60,001 to \$75,000	2,036,433		1,212,823	59.6%	823,610	40.4%
\$75,001 to \$100,000	2,681,749		1,713,508	63.9%	968,241	36.1%
\$100,001 to \$150,000	3,001,402		2,138,756	71.3%	862,646	28.7%
\$150,001 or more	2,519,634		1,990,641	79.0%	528,993	21.0%
Race						
Asian or Pacific Islander, non-hispanic	934,620		531,175	56.8%	403,445	43.2%
Black, non-hispanic	2,580,158		1,709,281	66.2%	870,877	33.8%
Hispanic	5,117,807		2,549,141	49.8%	2,568,666	50.2%
White, non-Hispanic	10,127,749		6,233,600	61.5%	3,984,150	38.5%
All other and multiple races, non-Hispanic	1,298,776		754,709	58.1%	544,068	41.9%

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, as reported in “Childcare in State Economies. 2019 Update.” By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

3. Overview of the childcare industry

Most organized childcare providers operate as formal business entities, either public or private, and are regulated and taxed by both state and federal authorities. In 2016, this formal sector of the childcare industry consists of a large network of nearly 675,000 small businesses, generating revenues of \$47.2 billion and accounting for more than 1.5 million workers. Although three-quarters of children are served by 75,000 large childcare centers that operate as employers (e.g., nursery schools, preschools, Head Start programs, summer camps, and facilities associated with religious organizations and companies), most childcare providers are home-based businesses operated by a sole proprietor (non-employers).⁴

The cost of organized childcare is steep and varies widely based upon the age of the child and the type of childcare provider chosen. The median cost of care across the states is generally much higher for younger children than for older children, and higher in childcare centers than in family childcare homes (see Table 3). For infants, the median cost of annual care is roughly \$7,900 in a family childcare home and \$10,750 in a childcare center. Care for 4-year-olds ranges from \$7,150 per year in a family childcare home to more than \$8,600 in a childcare center. The annual cost for school-aged children ranges from just less than \$4,000 in a family childcare home to \$4,200 in a center. Costs vary widely across states due to both regional cost of living as well as state differences in required staff-child ratios and safety standards with the New England states have some of the highest costs for childcare.⁵

Table 3. Annual Cost of Full-Time Childcare 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	\$4,570-16,737
4-year-old child	7,148	2,813-14,293
School-age child (before/after-school care)	3,947	896-8,844

Source: Childcare Aware of America. The U.S. and the High Cost of Childcare. (2018) <https://www.childcareaware.org/costofcare/>

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

Despite slim profit margins, revenue in the childcare industry was growing steadily over time prior to the pandemic. Table 4 shows that total revenue increased 13.8 % between 2012 and 2016 and has more than doubled (149 % increase) since 1997. In 2016, employer childcare firms accounted for more than 80 % (\$38.2 billion) of the \$47.2 billion in total childcare industry revenue. The remaining 25 % of children are served by 599,000 very small business establishments that are owned and operated by a self-employed person with no paid employees.

Table 4. U.S. Childcare Industry Statistics

Economic Indicator	1997	2002	2007	2012	2016
TOTAL REVENUE (\$ BILLIONS)					
Employers	19.0	28.8	38.6	41.5	47.2
Non-employers	4.8	7.0	8.9	9.5	9.0
NUMBER OF ESTABLISHMENTS	550,788	688,074	766,401	769,521	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
RECEIPTS/REVENUE PER ESTABLISHMENT (\$)					
Employers	228,833	315,362	395,410	425,555	507,011
Non-employers	9,726	11,376	12,927	13,650	15,023
TOTAL EMPLOYMENT (JOB EQUIVALENT)					
Employers	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
EMPLOYEE COMPENSATION AT EMPLOYERS (\$ BILLIONS)					
Earnings per employee (\$)	7.0	10.5	14.0	15.6	18.8
Earnings per provider (\$)	11,075	13,972	16,316	17,851	20,274
Earnings per provider (\$)	112,209	151,938	185,749	207,298	249,206
TOTAL EMPLOYEES PER ESTABLISHMENT					
Employers	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
RECEIPTS/REVENUE PER CAPITA (\$)					
	70.78	100.27	128.26	132.10	145.63

Source: Census Bureau – Economic Census and Non-employer Statistics; and Bureau of Labor Statistics as reported in “Childcare in State Economies. 2019 Update.” By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

1.2 Importance to the Economy

Organized childcare plays an important role in the economy in four ways. First, the childcare industry provides direct employment to many low-wage workers, boosting aggregate consumer spending. Second, childcare supports economic growth primarily through its support of increased labor force participation among parents. Third, childcare provides developmentally appropriate activities for children that can help reduce future achievement gaps, thereby indirectly stimulating economic growth. Fourth, childcare helps reduce inequality across groups by boosting labor force participation, hours worked, and skill development among low-income workers.

1. The childcare industry is an important part of the economy and directly employs 1.5 million individuals with \$24 million in total earnings that creates additional spillover effects of \$16 million for the aggregate

economy. In 2016, childcare firms employed 925,000 wage and salary workers with the typical provider employing 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. In addition, approximately 599,000 childcare sole-proprietors produced approximately \$15,000 in annual revenue, and the owner retained an estimated \$8,900 in net earnings after expenses.⁶

The spending of earnings received by owners and employees working within the childcare sector provides an important secondary source of stimulus to the economy. It is estimated that the \$24 million in employee compensation and net proprietor’s earnings generated directly within the childcare industry produces an additional \$16 million in indirect and induced earnings nationally. Put another way, each new dollar earned by workers and proprietors in the childcare sector produces \$0.65 of additional earnings in the broader economy due to the spending of earnings received by childcare workers.⁷

The spending of earnings received by owners and employees working within the childcare sector provides an important secondary source of stimulus to the economy.

In New England, the childcare industry is an important part of the regional economy. As of 2017, the industry produced \$3.1 million in revenue in 2017 and employed over 80,000 workers ranging from 5,229 in Rhode Island to 39,107 in Massachusetts. Total earnings across all six states summed to \$1.7 million in 2017 with earnings per worker ranging from \$17,411 in Maine to \$22,768 in Massachusetts. This 1.7 million in direct earnings in New England is estimated to produce an additional \$1 million in indirect and induced earnings throughout the region.⁸ To put this in perspective, Early Learning in New Hampshire estimates that the childcare industry’s economic impact accounts for 7.1% of state GDP, while direct spending from travel and tourism in New Hampshire accounts for 7.6% of state GDP.⁹

2. Childcare provides a service that is essential for working parents, thereby expanding the economy’s labor force, particularly among women with young children. It’s no coincidence that expansion of the organized childcare industry over the past several decades closely tracks the labor force participation rate of women with children. Yet the U.S. stands in contrast to other developed countries where the labor force participation rates of women with children have risen more continuously.¹⁰ Researchers have linked the leveling off in the labor force participation rates among American mothers to the limited availability of childcare and the associated high and rising cost for families.¹¹

...supporting the childcare industry is even more critical to preserving women’s labor force opportunities in New England compared to other regions.

States in the New England region have both higher rates of female labor force participation and higher rates of childcare usage. Figure 4 shows that states with a greater share of women in the labor force consistently have a higher share of children in paid care. As such, supporting the childcare industry is even more critical to preserving women’s labor force opportunities in New England compared to other regions.

Marital status and the presence of children in the household are strongly correlated with 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 %) than married mothers (67.3 %) and more likely to use organized childcare.¹² At the same time, the share of children living with only one parent has more than doubled from less than one

in ten in 1970 to more than one in four (27.0 %) in 2017.¹³ The combination of these two trends serves to enhance the impact of childcare on boosting the labor force participation of mothers.

Increased labor force participation plays a role in economic growth in two primary ways.¹⁴ The first is the direct increase in total employment, household earnings, and total economic output in a region as childcare assists new workers to enter the labor force or existing workers to work more hours. The second is the increase in demand for the market-based childcare industry as a greater share of parents entering the labor force choose to use organized childcare services.

Figure 4. Paid Child Care Usage and Women's Labor Force Participation Rate (2016)



Source: U.S. Census Bureau and Bureau of Labor Statistics as reported in "Childcare in State Economies, 2019 Update." By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>

3. Childcare provides developmentally appropriate activities for children of all ages that can help reduce future achievement gaps, thereby indirectly stimulating economic growth.

Childcare also boosts economic growth by enhancing school readiness and improving educational outcomes among children. Age 0 to 3 is a crucial time for learning, and having secure attachments to adult caregivers, including early childhood educators, can help promote healthy development.¹⁵ The early learning opportunities provided by pre-schools can help reduce achievement gaps between children from low-income families and their more affluent peers that emerge well before kindergarten and largely persist throughout K-12.¹⁶

And it's not just the youngest children—many school-aged children also benefit from organized childcare—particularly during the summer months. Typically, more than 15,000 camps serve more than 26 million children nationwide during the summer months. In addition, many summer camps rely on teen workers age 14-19 who often take jobs as summer camp counselors and for whom childcare is their first formal job experience. As a result, summer camps are an important source of employment for summer jobs programs in many cities including Boston, Chicago, and New York. In addition to earning incomes that help support their families, these types of summer job opportunities provide youth with meaningful employment experiences that have been shown to improve their long-term academic, employment, and criminal justice outcomes.¹⁷

In addition to earning incomes that help support their families, these types of summer job opportunities provide youth with meaningful employment experiences that have been shown to improve their long-term academic, employment, and criminal justice outcomes.

4. Childcare helps reduce inequality across groups by boosting labor force participation, hours worked, and skill development among low-income workers. Childcare can reduce economic inequality by allowing both parents to work, boosting total household income. In addition, subsidized childcare can help low-skilled parents to maintain their connection to the labor force or to upgrade their skills. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), provided subsidized childcare to low-income parents to enable them to work or to allow them to participate in a job training or education program. Estimates show that additional market-based activity in the childcare sector, combined with the added spending due to increased wages, are greater than the cost of childcare subsidies for low-skilled workers. All of these channels help to reduce income inequality and contribute to economic growth and productivity over the long-term.¹⁸

1.3 How COVID-19 has Impacted Childcare

The COVID19 pandemic resulted in an unprecedented shock to childcare arrangements—both formal and informal—most notably with the abrupt closure of daycares and schools in March 2020. At the beginning of the summer, many daycares and summer camps still had not re-opened due to the challenges of complying with state-imposed restrictions. For example, as of June 1, 2020, John Hamilton of the New Hampshire Community Loan Fund estimated that the pandemic had reduced child care in the state to 30% of its capacity.¹⁹

In addition, parents are left wondering if informal or unpaid caregiving arrangements with relatives, such as grandparents, are safe—particularly in states with high and/or resurging COVID-19 caseloads. Many parents also wonder whether the fall will offer any relief with the re-opening of schools—a topic that is discussed in more detail in the related report on the K-12 sector.

Although most cities and states have allowed daycares and summer camps to re-open, many facilities have been unable to do so due to several key factors.

Although most cities and states have allowed daycares and summer camps to re-open, many facilities have been unable to do so due to several key factors. First, many states waited until June to provide public health guidance for re-opening childcare, which was too late for summer camps to hire and train staff and/or make changes to physical spaces. In addition, there was little

time for summer camps to be able to inform parents about new procedures and confirm whether they still wanted to enroll. Indeed, many parents likely pursued alternative arrangements for the summer due to the uncertainty of care being provided by summer camps.

A second factor was the strict limitations imposed by the state public health guidance, some of which made it virtually impossible for daycares and summer camps to re-open. For example, in Massachusetts the initial guidelines limited preschool classrooms that previously accommodated 20 children to only 10, reducing the capacity of childcare centers as well as their revenues by half.²⁰ At the same time, strict limits on interaction prevent teachers and aides from floating between rooms, keeping them dedicated to the same group of children all day, every day, and possibly necessitating new hires.²¹ Even if childcare centers could afford additional teachers in the classroom to allow for breaks, the regulations also reduce the capacity of classrooms so that adding a teacher means less space for a tuition-paying child. Given that daycares already operate on slim profit margins, these initial restrictions mean either steep increases in tuition for families or going out of business.²² After 25,000 early childhood educators signed an online petition, the state loosened some of these restrictions, most notably the 10-to-1 ratio for pre-school classrooms.²³

Other restrictions are somewhat less costly but more difficult in terms of logistics. These include the need to purchase PPE for staff and additional cleaning materials along with stringent protocols on hygiene, hand washing, and temperature checks for children and staff. Providers must create a single point of entry for kids and stagger parent drop-offs. There's also restrictions on the number and types of toys to ensure no sharing.²⁴ In the new guidance document, state officials acknowledge that meeting the new requirements might not be possible for every childcare provider, meaning they'd have to remain closed.²⁵ But some advocates worry this disruption could also lead to a wave of closures, meaning there won't be much of a childcare system to go back to.

1. Childcare Industry

According to survey of 5,000 childcare centers and family daycares conducted by the National Association for the Education of Young Children (NAEYC) during April 2020, nearly half of daycare centers were completely closed and the remaining programs were operating at limited capacity (e.g., for children of essential workers only) or under modified rules. A greater share of programs in cities and suburbs (51%) were completely closed than in small towns or rural areas (40%). In addition, whereas 50% of childcare centers reported they were completely closed, only 27% of family childcare homes had ceased operating.²⁶

As with many daily activities during the pandemic, childcare usage is dictated by both state mandates for opening as well as public perception of what is safe. If parents do not feel that it is safe to send their children to group daycares, then they may not be able to take advantage of childcare even when it is made available. For example, of programs that remained open in some way, 85% of respondents to the NAEYC survey reported that they were operating at less than 50% of their enrollment capacity, and the majority of those—65%—were operating at less than 25% of capacity.²⁷

Due to closures and plummeting enrollments, the childcare industry has suffered an enormous loss of revenue. According to the NAEYC survey, 52% of childcare centers and 43% of family childcare homes were not charging parents while they were closed and another 22% of both groups offered reduced tuition rates. Regardless of whether tuition was charged or not, the majority of respondents found that fewer than 25% of families continued to pay tuition.²⁸ As of

July, approximately two out of five respondents—and half of those who are minority-owned businesses—are certain that they will close permanently without additional public assistance.²⁹

In addition, nearly two out of every three summer camps have opted to remain closed as of June, according to a survey of 885 programs by CampMinder. Of the camps that are closed, most are overnight camps although 17% of day camps have also chosen not to re-open.³⁰ The American Camp Association predicts that this sector will lose more than \$16 billion in revenues in addition to the 900,000 lost jobs and \$4.4 billion in lost wages.³¹ However, re-opening did not seem to be financial feasible for many summer camps this year with some citing six-figure expenses for hand sanitizer, cleaning, new portable sinks and bottled water to replace giant jugs.

As of July, approximately two out of five respondents—and half of those who are minority-owned businesses—are certain that they will close permanently without additional public assistance.

2. Childcare Workers

Like other industries in the service sector, the childcare industry has suffered large job losses due to the pandemic. According to the NAEYC survey, 37% of survey respondents reported they have laid off or furloughed workers, or that they themselves were laid off or furloughed.³² Between March and April, 351,500 child-care workers lost their jobs with just under one-third of those jobs having been recovered in May and June.³³

Yet it's likely that childcare workers have little savings to offset the loss of wages from being laid off or furloughed. Prior to the pandemic, early childhood educators were earning such low wages that nearly half of them were eligible for public assistance. In addition, 59% of individuals working in childcare centers and 43% of those working in family childcare homes cited paying staff or themselves as sole providers as the thing they were most worried about. As a result, nearly a quarter said they had encouraged staff to file for unemployment benefits.³⁴ For other providers, keeping on staff has meant increasing pay during the pandemic. For example, in New Hampshire, the state provided an extra \$5 per hour in hazard pay which some employers matched with an additional \$5 to be able to entice workers to stay on rather than take the enhanced unemployment benefits.³⁵

3. Parents

For working parents, the continued uncertainty surrounding childcare and in-person instruction for school-aged children is unprecedented, with a multitude of consequences for family life, education, and earnings. For example, according to a Massachusetts survey of 2,300 parents of young children between April 20 and May 29, 2020, 61% of parents said that they were “struggling to work from home without childcare.” Half of the parents surveyed said that they “will not be able to return to work without a consistent childcare solution for my child.”³⁶

...61% of parents said that they were “struggling to work from home without childcare.”

Nationally, a survey of 800 working parents of young children conducted in early April found that 43% of parents working remotely and 49% of those working in-person reported needing childcare. Among those needing care, nearly two-thirds (63%) of parents had difficulty finding childcare, including 33% who found it very difficult—nearly double what parents reported just six months ago. Among those able to care for their children at home, one third of parents who are working remotely are alternating hours of childcare with another adult. For parents working in-person, 21% of parents are reducing their hours. Another 10% of parents are working outside normal business hours, while 8% are taking paid leave and 11% are taking unpaid leave to care for children.³⁷

What are the consequences for productivity? A recent survey conducted by Northeastern University between May 10 and June 22, 2020 revealed that 13.3% of working parents report that they have lost a job or reduced their hours due to a lack of childcare. On average, parents are losing a full day of work (8 hours) each week to address their children's needs during the pandemic.³⁸ Combining reported hours lost for the individual as well as their spouse/partner, the survey revealed an even greater loss of 14.6 hours per week which could represent a significant hit to the household's total income.

4. Children

And last but certainly not least is the effect of childcare closures on the children who rely on their providers for stable, nurturing care. For example, in Massachusetts, 84% of parents said that they were “worried that my child is missing out on important developmental opportunities (socialization and learning)” while daycares have been closed. This second most prevalent concern was the spread of the Coronavirus through daycares which was expressed by 72% of parents.³⁹

Even when daycares re-open, many daycare providers and summer camp directors note that the social distancing measures imposed by the state are not feasible for small children and go against the principles of early education. For example, infants are unable to read facial expressions if teachers are wearing masks and toddlers will fail to develop socialization skills if encouraged to play separately, alone.⁴⁰

2. Policy Considerations for Recovery

2.1 Preexisting challenges exacerbated by COVID-19

1. Margins have always been thin for providers and the imposition of restrictions on re-opening will likely mean that many providers will go out of business.

Even before the pandemic, childcare programs were operating on razor-thin margins and there is little room for providers to make up for that lost revenue, since the vast majority of funds go to payroll and rent.⁴¹ Given that childcare is a labor-intensive business, there is little opportunity to achieve economies of scale and no technological innovation that can lower the cost of care.⁴² Moreover, workers are paid an average of just \$10.72 an hour so cutting wages is not a viable option.⁴³

A recent policy brief by the Learning Policy Institute warned that thousands of childcare centers and family childcare homes are now in danger of closing permanently. The childcare industry is an ecosystem of providers that are mostly small businesses—letting them fail will not be easily undone. These closures could lead to the loss of as many as 450,000 childcare slots, undermining both the ability of parents to return to work and efforts to reopen the economy.⁴⁴ In New England, where the costs of operating are higher, the fallout could be even greater. For example, in Rhode Island, roughly 40 percent of providers that responded to a Department of Human Services survey said they are in danger of closing within a matter of months.⁴⁵

The childcare industry is an ecosystem of providers that are mostly small businesses—letting them fail will not be easily undone.

2. Daycare was expensive for families prior to the pandemic but is likely to be even more so with the additional restrictions imposed on re-opening.

Over the past two decades, the cost of childcare has more than doubled, while wages have remained mostly stagnant.⁴⁶ Before the pandemic, infant center-based care for a single child is approximately 17.8 % of U.S. median household income and exceeds the cost of college tuition in 28 states and the District of Columbia—including all of southern New England (e.g., Connecticut, Massachusetts, and Rhode Island).⁴⁷ Among the New England states, the cost of childcare as a percentage of median in-

Among the New England states, the cost of childcare as a percentage of median income ranged from 16.4% in Maine to 26.4% in Massachusetts.

come ranged from 16.4% in Maine to 26.4% in Massachusetts.⁴⁸ In many communities, there were not enough families who can cover the full cost of childcare, yet childcare subsidies provided by the state and federal government reach just 1 in every 6 eligible children.⁴⁹

The pandemic will only made daycare even more expensive as the number of slots decreases and the cost per child increases due to space constraints, cleaning, and inability to share toys/supplies. This will likely exacerbate the hard choices that families with young children have to make between spending a significant portion of their income on childcare, finding a cheaper, but potentially lower-quality care option, or leaving the workforce altogether to become a full-time caregiver. In fact, in 2016 alone, an estimated 2 million parents made career sacrifices due to problems with childcare.⁵⁰

3. The burden of childcare has typically fallen disproportionately on women when their family cannot find or afford childcare, and this has been exacerbated by the pandemic.

Even before the pandemic, women often made job decisions based on childcare constraints rather than to benefit their financial situation or career goals. In a 2018 survey conducted by the Center for American Progress, mothers were 40% more likely than fathers to report that childcare had negatively impacted their careers, whereas there was no impact on fathers' employment. Mothers said that if they had access to more affordable and reliable childcare, they could increase their earnings by finding a higher-paying job, applying for a promotion, seeking more hours at work, or finding a job in the first place.⁵¹

Childcare access is strongly associated with maternal labor force participation, and child care closures will likely lead to more costly career sacrifices for women. Researchers find that a 10% increase in the cost of childcare reduces the employment of single mothers by 3 to 4 % and married women by 5 to 6%.⁵² During the pandemic, there have been numerous stories about women quitting their jobs due to the lack of childcare.⁵³ A recent survey of working parents conducted by Northeastern University finds that among women who reported losing a job during the pandemic, 25% say it was due to a lack of childcare. The rate was less than half that among men.⁵⁴

Researchers find that a 10% increase in the cost of childcare reduces the employment of single mothers by 3 to 4 % and married women by 5 to 6 %.

4. Even before the coronavirus pandemic struck, black and brown families were more likely to live in childcare deserts with few childcare options. As with many other aspects of social and economic inequality,⁵⁵ COVID-19 appears to have taken a greater toll on Hispanic and Black communities and exposed large racial disparities in access to childcare. Prior to the pandemic, most childcare “deserts” were located in low- and middle-income communities, including many predominantly Hispanic neighborhoods.⁵⁶ For example, according to Child Aware, nearly 1 in 3 children under age 6 in working families do not have access to licensed child care in Suffolk County, Massachusetts (e.g., Boston).⁵⁷

Indeed, the Northeastern University survey found that the loss of hours due to lack of childcare is greater for women of color, women without a college degree, and women living in low-income households—groups which lost 9 or more hours per week, likely due to working in essential industries that require in-person work. Moreover, household that were low-income, less educated, and nonwhite were less likely to have any type of back-up childcare. Yet, when back-up childcare was available to these vulnerable populations, they lost fewer hours of work per week during the pandemic. For example, women without a college degree lose only 7 hours per week instead of 9 hours.⁵⁸

2.2 **New Challenges and Opportunities that have been Revealed or Caused by COVID-19**

1. Fear and uncertainty about the virus have further limited childcare options and future childcare closures have the potential to become a self-fulfilling prophecy.

Fear regarding the spread of COVID-19 has limited alternative childcare arrangements with relatives, particularly grandparents. Among care provided by relatives, grandparents (19.5 %) were the most common source of relative care for preschoolers—a vulnerable population with high mortality rates due to COVID-19.⁵⁹ Some who would turn to grandparents for extra help now see that option as less safe and other possibilities can be unaffordable.

Ongoing uncertainty about the coronavirus may limit the degree to which parents believe that they can make use of formal daycare arrangements. According to a national survey of 800 parents in April, three quarters were concerned about their child’s potential exposure to COVID-19 when they go back to childcare. In addition, around half of parents (46%) are concerned that their current or previous provider would no longer be open and 37% are concerned that their child’s teacher won’t be the same. Finally, about half (47%) of parents are concerned they won’t be able to afford childcare when they can return to the workforce.⁶⁰

Ongoing uncertainty about the coronavirus may limit the degree to which parents believe that they can make use of formal daycare arrangements.

2. The magnitude and duration of the COVID19 childcare crisis has the potential to permanently reduce labor force participation, particularly among women, and in turn lead to slower economic growth for a sustained period of time.

Many families were able to find short-term solutions during the initial round of daycare and school closures by reducing hours, taking paid or unpaid leave to care for children, or alternating schedules with another adult in household.⁶¹ However, these stopgap measures were based on the assumption that the fall would bring a return to school and organized childcare and are simply unsustainable for the long-term. The longer that the childcare crisis continues, it is likely that more parents, primarily women, will need to drop out of the labor force to care for children. Research shows that women who drop out of the work force to take care of children often have trouble getting back in, and the longer they stay out, the harder it is. In addition, wage losses are much more severe and enduring when they occur in recessions, and workers who lose jobs now are likely to have less secure employment in the future.

Absent adequate investment, there is a concern that many temporary childcare closures will likely become permanent ones, hampering the economic recovery in the short-term and economic growth in the long-run. The April NAEYC survey found that just 11 % of providers could survive a closure of an indeterminate length of time without government support—and only 27 % could survive a closure of a month. As physical distancing measures are likely to remain necessary well into the fall, the United States is at risk of losing a large portion of its childcare providers, further burdening a system that was already under-resourced.

2.3 **Perspective on existing recovery efforts**

1. Barriers to the application process for the Paycheck Protection Program (PPP) and the program itself have hampered its effectiveness in addressing the needs of the childcare industry.

According to the NAEYC April survey, only 53% of childcare centers and 25% of family childcare homes applied for a PPP loan.⁶² Yet many childcare directors and owners of family childcare programs are concerned about the risks related to loans, wary about taking on debt, and skeptical about the potential for forgiveness. Indeed, 69% of respondents either do not want loans or are worried about having to pay loans back. For summer camps, there was little opportunity to be able to apply for PPP, one of many factors affecting the decision not to re-open.

Moreover, a follow-up survey conducted by NAEYC in May found that while the PPP enabled some providers to pay their employees and cover some of their fixed costs, others have been unable to access the program—particularly family daycare providers. Among the childcare programs who reported applying for PPP, only half of were approved for a loan—roughly equivalent to one-quarter of the childcare market. In addition to a lack of funding, providers were also denied due to problems with their credit scores and not having a business checking account—neither of which are required to qualify for the loan. Among those who received a loan, over half received an amount that was \$100,000 or less and only 6% reported a loan that was greater than \$250,000.⁶³

Even among those daycare providers who were fortunate to receive a PPP loan, they will be lucky to break-even as they re-open under the new public health guidelines. One daycare provider who owns multiple centers in Massachusetts shared their detailed budget which showed a financial swing from a net profit of \$18,964 in March to a net loss of -\$58,765 in July. A key driver was the combination of a 40% reduction in revenue combined with a 6% increase in expenses for PPE, cleaning supplies, and curriculum supplies (individual toys and art supplies).

2. Although a federal relief package in March provided an additional \$3.5 billion for the Childcare Development Block Grant (CCDBG) for emergency support, the funding is not enough to keep childcare programs afloat for long and did not go to all types of providers. Childcare is an essential industry that desperately needs a bailout, yet the 3.5 billion that was allotted in March is less than the emergency aid provided for each of the three major airlines: American (\$5.8 billion), Delta (\$5.4 billion), and United (\$6.0 billion).⁶⁴

Many states, such as Connecticut and Rhode Island, have used the CCDBG funds to pay for childcare for the children of essential workers. For example, CTCares for ChildCare provided \$5 million in funding for childcare programs caring for essential workers' children. An additional \$10 million helped frontline workers find/pay for childcare through CTCare for Frontline Workers.⁶⁵

Although several states have also used the funds to stabilize private childcare providers, this is not a universal practice. For example, Vermont is supporting providers that serve private-pay families who are currently unable to afford tuition through its Childcare Stabilization Payment Program.⁶⁶ However, in nearby Massachusetts, CCDBG funds have only gone to those centers that accept subsidies for caring for low-income and homeless children, as well as children under the care of the Department of Children and Families. The other half of the state's 8,200 childcare centers serve only private-paying families and did not receive any portion of the federal bailout money.⁶⁷

Providers say that the federal relief won't go far. In Massachusetts, CCDBG funds will cover only \$2,200 per month to eligible childcare centers in July and August. One provider reported that would restore only about \$500 a week from the \$10,000 she expects to lose weekly on tuition alone due to the new regulations.⁶⁸ In the absence of substantial new funding, states will need to make tough decisions about how to allocate the limited CCDBG dollars. For example, during the Great Recession, funding for 120,000 childcare slots was cut in a single year.⁶⁹

3. Although Congress expanded unemployment insurance benefits under the CARES Act to cover parents who had no choice but to stay home to care for their children while schools and day cares are closed, people have had difficulty accessing those benefits.

The CARES Act expanded unemployment insurance eligibility to workers affected by COVID-19, including parents who are unavailable to work because a child in the worker's household is unable to attend school due to a COVID-19-related closure.⁷⁰ But there has been concern both over how difficult it has been to apply, and unanswered questions about how eligibility expansions will be administered. For example, it's not clear whether a reduction in hours qualifies them for PUA and states have had to interpret the eligibility criteria until DOL clarifies.

In addition, it seems that state systems have not yet figured out how to validate these cases in a timely manner. An article in the Washington Post told the story of a mother who had to quit her nursing job in Texas due to a lack of childcare. She filed her first unemployment claim in April but received only one payment, eventually discovering that her case has been placed "under review." As of July she still has yet to receive any additional payments and desperately needs to pay rent.

4. Congress also enacted a temporary national paid leave program but few parents seem to know about it or have accessed it.

The Families First Coronavirus Response Act (FFCRA) created a new temporary right to paid leave and also a new reason for taking paid leave: To care for your child whose school is closed or childcare provider is unavailable due to COVID-19.⁷¹ The new program, which expires at the end of the year, provides 10 weeks of paid family and medical leave through the individual's employer at two-thirds of the individual's salary to care for a child who is home due to school or day care closures.

However, the benefit only applies to parents working at employers with less than 500 people. Although large companies like Microsoft and Google have expanded paid leave on their own, not all businesses have access to the same resources. In addition, employers of health care providers and emergency responders may choose not to provide paid leave. Also, small businesses with fewer than 50 employees can be exempted, if providing paid leave would threaten their ability to stay in business. Not surprisingly, a recent survey conducted by Northeastern University finds that only 4 % of working parents had used paid leave during the pandemic.

Only one New England state, Rhode Island, already had a paid leave program in place prior to the pandemic. New initial claims for family caregiving nearly tripled from February to March, increasing from 1,016 to 2,841 before declining somewhat in April. This is partly due to executive action taken by the governor to expand benefits to workers caring for children who are out of school because of stay-at-home orders.⁷²

Only one New England state... already had a paid leave program in place prior to the pandemic.

In sum, recovery efforts have attempted to put a bandaid on a gunshot wound. There are also a host of long-term issues that are not currently being adequately considered in any recovery effort to date. These include the developmental impacts on children, the mental health of parents and caregivers, and the labor market disruption of working parents dropping out of the labor force for an extended period of time.

3. Interconnecting Issues

Childcare is a critical piece of our economic infrastructure that enables parents to “get to work” just like roads and bridges do for commuters. Millions of working adults rely on school and childcare systems to facilitate their participation in the workforce. A full economic recovery simply cannot happen if children do not physically return to schools and childcare programs.

According to the American Community Survey, about one-third of workforce has a child under 14 in their household resulting in 50 million workers who may be seeking childcare as the economy re-opens this summer—of whom 30% have children under the age of 6. Even assuming that non-working adults in the household can assume these childcare responsibilities, that would leave 21% of the workforce seeking childcare. If we assume only one parent within the household would need to quit their job, that leaves 11% of the workforce (or 17.5 million workers) facing major barriers to work if schools and daycares remain closed.⁷³

Moreover, the obstacles that childcare imposes on workers during the COVID-19 crisis is widespread and not limited to just a few key industries or certain geographic areas. The share of workers without within-household childcare would range from 18% in transportation to 25% in education and health care. Similarly, the share of workers with childcare obligations and no available caregiver in their household ranges from 13% to as high as 33% for some commuting zones, yet the most are near the national average of 21%. Thus, addressing childcare obligations as part of the nation’s “re-opening” strategy is vital for every industry and every state.⁷⁴

How much is the lack of childcare likely to dampen the economic recovery? One study in Germany explored the labor market consequences of reopening the economy without fully reopening schools and child-care centers. The authors document that 26% of the German workforce have children aged 14 or younger

and estimate that 11% of workers and 8% of all working hours are affected if schools and child-care centers remain closed. They estimate the share of affected employed workers to be close to twice the number of all unemployed workers in Germany, and loss of hours worked is eight times the reduction experienced during the 2008-09 financial crisis. Although workers might find alternatives to organized childcare, the aggregate labor supply effects are so large that the authors conclude it will be necessary to address the needs of working parents when developing plans for restarting the economy.⁷⁵

Finally, even if parents are able to juggle working from home, other studies have found that they are not likely to be as productive. A survey of approximately

4,500 Principal Investigators (PIs) at U.S. and Europe-based research institutions conducted in April 2020, found a sharp decline in time spent on research, with laboratory-based fields being the most negatively affected. However, the largest disruptions are connected to childcare. Reporting a young dependent was associated with declines similar in magnitude to those reported by the laboratory-based fields and can account for a significant fraction of the observed gender differences.⁷⁶

When access to childcare limits parental employment, businesses cannot operate at full capacity, and overall economic growth slows.⁷⁷ When problems with childcare arise, parents must scramble to find alternative options or miss work to care for their children. For millions of parents, that insecurity can mean working fewer hours, taking a pay cut, or leaving their jobs altogether.⁷⁸ Even before the pandemic, 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 childcare.⁷⁹ A 2019 report found that American businesses lost an estimated \$12.7 billion annually because of their employees’ childcare challenges. Nationally, the cost of lost earnings, productivity, and revenue due to the childcare crisis totaled an estimated \$57 billion each year.⁸⁰

Although workers might find alternatives to organized childcare, the aggregate labor supply effects are so large that the authors conclude it will be necessary to address the needs of working parents when developing plans for restarting the economy.

4. Recommendations

1. The childcare industry is an essential component of the both the New England and U.S. economic recovery and should receive a large-scale and immediate bail out.

There is no question that the COVID19 pandemic has had a devastating impact on the childcare industry in New England. A survey of childcare businesses in May by the Connecticut Office of Early Childhood found that 80% of providers said that COVID-19 has been extremely detrimental to their business.

Overall, providers were most worried about loss of revenue, securing PPE and other supplies, and families returning when they re-opened. When asked what the government can do to help, 83% of respondents across all provider types reported the need for financial help including cash flow, debt relief, or supports for their staff. The second most prevalent theme (71% of respondents) was the need for clear and timely communication from the government.⁸¹

The second most prevalent theme ... was the need for clear and timely communication from the government.

What will it take to keep childcare programs open? One analysis from the Center for Law and Social Policy (CLASP) estimates that it will cost about \$9.6 billion a month, for a total of more than \$50 billion.⁸² This estimate assumes that the government would cover private programs' lost tuition for 6 months to enable them to continue paying staff and rent. The CLASP estimate also assumes that the government covers the cost of providing childcare for essential workers, which it projects at about 20% more per child to meet enhanced health and safety standards. The policy analyzed in this plan would extend to all licensed childcare providers in the nation, excluding state preschool and Head Start, whose grants have continued.

Research shows that such an investment would ultimately pay for itself over the course of one year. Estimates show that the cost of lost earnings, productivity, and revenue due to the childcare crisis that existed even before the pandemic cost an estimated \$57 billion each year.⁸³ The \$50 billion investment has been supported by a group of economists (including myself),⁸⁴ industry groups,⁸⁵ and Massachusetts Congressional advocates like Senator Elizabeth Warren and Representative Katherine Clark.⁸⁶ Although more of this aid could be targeted to daycares that accept subsidies for caring for low-income children, the scale and scope of the current daycare crisis caused by the pandemic suggests that any type of bailout should also include private daycare providers.

2. Absent a full-scale bailout, the government should target the remaining PPP loan dollars towards the childcare industry and eliminate barriers for family daycare providers.

To the extent that additional funding and policy changes are coming for the Paycheck Protection Program, these funds should be limited to only small businesses with an emphasis on family childcare

homes. These daycare operators are sole proprietors, some of whom may be unbanked, and additional oversight is needed to ensure that banks are not overly restrictive in their lending requirements. Yet, even a fully functional and funded Paycheck Protection Program would not be enough to sustain the existence of the childcare industry in the face of additional costs associated with public health guidelines including the need to purchase PPE for staff, perform additional cleaning and sanitizing, and provide individual toys and supplies for all children. This is even more imperative in New England where operating costs and the share of children typically served by paid providers is higher than in other regions of the country.

Yet, even a fully functional and funded Paycheck Protection Program would not be enough to sustain the existence of the childcare industry in the face of additional costs associated with public health guidelines...

3. As daycares re-open throughout New England, we should be using this opportunity to learn about transmission of COVID19 among children and which public health measures are the most effective at limiting the spread of the virus.

The combination of school and daycare closures and a lack of testing capacity has left us with little knowledge about the rate of transmission among children and which public health measures are most effective at stopping the spread of the virus. During the pandemic, the YMCA cared for up to 40,000 children between the ages of 1 and 14 at 1,100 separate sites, with no reports of coronavirus clusters or outbreaks. Similarly, in New York City, the Department of Education reported that it cared for more than 10,000 children at 170 sites with no outbreaks.⁸⁷ Yet recent outbreaks at summer daycamps in several states suggest that we cannot extrapolate from those earlier experiences without better scientific evidence.⁸⁸

As school districts consider reopening plans throughout New England, we should be learning from these real-world childcare experiences. We should be performing random testing at daycares and daycamps that are running under different state restrictions for staffing ratios, mask wearing, hand washing, cohorting, spacing, deep cleaning, ventilation, temperature checks, and elimination of high touch surfaces and shared tools. Understanding which practices are most effective at limiting the virus and assessing the costs and benefits of these measures with testing and contact tracing could help us make more informed decisions about which restrictions need to remain in place and which could be lifted. Indeed, a May report from the Johns Hopkins Center for Health Security calls for a national research agenda to quickly address the outstanding questions about children and the coronavirus including the vulnerability of children with underlying health conditions and the disparities across communities with greater risk of exposure.⁸⁹

4. Once we have learned more about which public health measures are absolutely necessary to maintain safety in daycares, New England states should consider loosening other restrictions that are less effective but costly to providers and developmentally inappropriate for children.

Policymakers should acknowledge that COVID-19 public health restrictions are intended to mitigate, rather than eliminate, risk. The American Academy

Policymakers should acknowledge that COVID-19 public health restrictions are intended to mitigate, rather than eliminate, risk.

of Pediatricians notes that “no single action or set of actions will completely eliminate the risk of SARS-CoV-2 transmission, but implementation of several coordinated interventions can greatly reduce that risk. For example, where physical distance cannot be maintained, students (over the age of 2 years) and staff can wear face coverings (when feasible).”⁹⁰

Policymakers also need to take into account the loss of both social/emotional and academic learning that may hinder child development in the long-run. Again, the AAP notes that “in Pre-K, the relative impact of physical distancing among children is likely small based on current evidence and certainly difficult to implement. Therefore, Pre-K should focus on more effective risk mitigation strategies for this population. These include hand hygiene, infection prevention education for staff and families, adult physical distancing from one another, adults wearing face coverings, cohorting, and spending time outdoors.”⁹¹

Equally as important is the cost associated with how the lack of peer interaction has affected children’s mental health. As James Morton, chief executive officer of Boston’s YMCA, stated in a recent interview, “Our goal is to make this the best summer ever. That’s certainly one of our mantras every summer. But this summer is different. This summer ... has to be different than than any summer camp experience we’ve offered before, because children are experiencing so much more now than they’ve ever had to experience. And we want to bring their lives back to a sense of normalcy. Frankly, we’re thinking of one word, and that is relief. We want to provide our children with as much relief as we possibly can.”⁹²

These concerns are especially relevant in New England where COVID-19 transmission rates are relatively low. This region is one of the best candidates for safely re-opening daycares and schools in person—either fully or in a hybrid model.

This region is one of the best candidates for safely re-opening daycares and schools in person—either fully or in a hybrid model.

5. Employers need to be part of the solution and it may be necessary to impose mandates that provide working parents with the flexibility and job stability needed to weather the pandemic for the long-term.

Never before has the need for employee work-life balance been greater and this problem is likely to become more acute as more people physically return to the workplace. According to a recent survey by the Society for Human Resource Management, 86% of employers said they are offering or considering offering flexible hours, 71% said they may allow full-time remote work for parents, and 63% said they may offer reduced working hours.⁹³ Maintaining or even expanding pre-existing on-site daycares can help ameliorate the loss of daycare slots if other childcare providers go out of business. Expanding financial support for in-home care provided by a relative, babysitter, or nanny can also help expand caregiving options for working parents.

...states should be required to show that their systems are in compliance with these new regulations and should provide benefits in the interim if applications take more than two weeks for review.

6. States and the federal government need to extend the supports put in place by the CARES Act and the FFCRA and ensure that they can be accessed by working parents.

The expanded UI benefits under the CARES Act for workers who have lost a job to care for children should continue until daycares and schools can safely re-open in-person in a given state. Although

this support does not solve the childcare crisis, it does replace some portion of the income lost due to the lack of access to affordable daycare. Moreover, states should be required to show that their systems are in compliance with these new regulations and should provide benefits in the interim if applications take more than two weeks for review.

The Families First Coronavirus Response Act (FFCRA) provides 10 weeks of paid family and medical leave at two-thirds of the individual’s salary to care for a child who is home due to school or day care closures. However, the legislation is temporary and will expire at the end of this year. It should be extended at least through the next school year. In addition, the process by which parents can take paid family leave through their employer should be mandated and made transparent. In addition, coverage should be extended to include healthcare workers, small businesses, and low-wage workers in large companies who are least likely to have the resources to weather an extended unpaid leave. Absent federal action, states should provide childcare grants directly to working parents to cover the cost of hiring in-home or family daycare.

In conclusion, it is imperative that policymakers act quickly to put the childcare industry on life support until the pandemic can be brought under control. Otherwise, it is likely that there will be little left of the childcare system to support working parents who comprise roughly one-third of the U.S. workforce and are a necessary component of the nation’s future economic well-being. Although it may seem that the New England childcare industry would be in a better position to weather the pandemic due to the relatively low COVID-19 caseloads, states have imposed even stricter requirements on daycare and school re-openings than in other parts of the country, pushing operating costs even higher. Moreover, the region has a higher female labor force participation rate and relies more heavily on paid daycare such that the impact on re-opening the New England economy is even greater than in other parts of the country.

Works Cited

- 1 Data on childcare arrangements typically comes from two sources. The first is the Early Childhood Program Participation (ECP) surveys administered by the National Center for Education Statistics which addresses participation in regular nonparental forms of care and education programs for children ages 6 and under who have not yet enrolled in kindergarten including relative, non-relative, center-based, and Head Start programs. The second is the Survey on Income and Program Participation (SIPP) administered by the Census Bureau which covers care arrangements of school-age children ages 5 to 14.
- 2 Childcare in State Economies. 2019 Update. Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 3 Ibid
- 4 Ibid. The estimate includes all childcare (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.
- 5 Childcare Aware of America. The U.S. and the High Cost of Childcare. (2018) <https://www.childcareaware.org/costofcare/>
- 6 "Childcare in State Economies. 2019 Update." By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 7 Ibid.
- 8 Ibid.
- 9 NH's already vulnerable child care industry overwhelmed by COVID-19. <https://www.concordmonitor.com/NH-s-already-vulnerable-childcare-industry-overwhelmed-by-Covid-19-34559156>
- 10 Female Labor Supply: Why Is the United States Falling Behind? Francine D. Blau Lawrence M. Kahn AMERICAN ECONOMIC REVIEW VOL. 103, NO. 3, MAY 2013 (pp. 251-56) <https://www.aeaweb.org/articles?id=10.1257/aer.103.3.251>
- 11 The Child Care Crisis Is Keeping Women Out of the Workforce By Leila Schochet March 28, 2019 <https://www.americanprogress.org/issues/early-childhood/reports/2019/03/28/467488/child-care-crisis-keeping-women-workforce/>
- 12 See: Bureau of Labor Statistics. "Employment Characteristics of Families." Table 4. Available online at: <https://www.bls.gov/news.release/famee.t04.htm>
- 13 Ibid
- 14 Labor force participation has long been viewed as a potential source of added economic growth. 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
- 15 Neurons to Neighborhoods The Science of Early Childhood Development (2000). National Academies of Sciences, Engineering and Medicine Consensus report
- 16 Getting Down to Facts II: A Portrait of Educational Outcomes in California. September 2018. https://gettingdowntofacts.com/sites/default/files/2018-09/GDTFII_Report_Reardon-Doss.pdf
- 17 See: Modestino, Alicia S. 2019. How Do Summer Youth Employment Outcomes Improve Criminal Justice Outcomes and for Whom? Journal of Policy Analysis and Management, 38(3): 600-628. <https://onlinelibrary.wiley.com/doi/10.1002/pam.22138>
- Gelber, A., Isen, A., & Kessler, J. B. (2014). The effects of youth employment: Evidence from New York City summer youth employment program lotteries. Quarterly Journal of Economics, 131, 423-460.; Heller, S. (2014). Summer jobs reduce violence among disadvantaged youth. Science, 346, 1219-1223.; Leos-Urbel, J. (2014). What is a summer job worth? Journal of Policy Analysis and Management, 33, 891-911.
- 18 Childcare in State Economies. 2019 Update." By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 19 NH's already vulnerable child care industry overwhelmed by COVID-19. <https://www.concordmonitor.com/NH-s-already-vulnerable-childcare-industry-overwhelmed-by-Covid-19-34559156>
- 20 MASSACHUSETTS CHILD AND YOUTH SERVING PROGRAMS REOPEN APPROACH Minimum Requirements for Health and Safety https://eeclead.force.com/resource/1591036172000/Min_Req
- 21 Childcare owners say new regulations will hike parents' fees, put them out of business <https://www.bostonglobe.com/2020/06/05/metro/child-care-owners-say-new-regulations-will-hike-parents-fees-put-them-out-business/>
- 22 Childcare Providers Worry New Safety Requirements Are Too Restrictive <https://www.wbur.org/edify/2020/06/03/child-care-providers-safety-restrictions>
- 23 State eases COVID-19 regulations for reopening child care centers and summer camps. <https://www.boston.com/news/coronavirus/2020/06/16/updated-regulations-reopening-child-care-centers-camps-coronavirus>
- 24 <https://www.wbur.org/edify/2020/06/02/child-care-coronavirus-regulations>. Temperature Checks And No Sharing: Here's What Childcare Could Look Like When It Reopens
- 25 https://eeclead.force.com/apex/EEC_ChildCareEmergencyReopenInfo
- 26 From the Front Lines The Ongoing Effect of the Pandemic on Childcare. April 17, 2020. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/naeyc_coronavirus_ongoingeffectsonchildcare.pdf
- 27 Ibid.
- 28 Ibid.
- 29 Holding On Until Help Comes A Survey Reveals Child Care's Fight to Survive. July 13, 2020. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/our-work/public-policy-advocacy/holding_on_until_help_comes_survey_analysis_july_2020.pdf
- 30 How Summer Camps are Responding to COVID-19: June Update June 9, 2020. <https://campminder.com/go/how-summer-camps-are-responding-to-covid-19-june-update/>
- 31 Summer Camp With a Daily Health Check; No Swim Lessons, High Fives. July 7, 2020 <https://www.wsj.com/articles/summer-camp-with-a-daily-health-check-no-swim-lessons-high-fives-11594118605>
- 32 From the Front Lines The Ongoing Effect of the Pandemic on Childcare. April 17, 2020. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/naeyc_coronavirus_ongoingeffectsonchildcare.pdf
- 33 <https://www.bls.gov/news.release/empsit.t17.htm#>
- 34 From the Front Lines The Ongoing Effect of the Pandemic on Childcare. April 17, 2020. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/naeyc_coronavirus_ongoingeffectsonchildcare.pdf
- 35 NH's already vulnerable child care industry overwhelmed by COVID-19. <https://www.concordmonitor.com/NH-s-already-vulnerable-childcare-industry-overwhelmed-by-Covid-19-34559156>

- 36 Family Perspective COVID-19 Survey. Strategies for Children http://www.strategiesforchildren.org/COVID-19/COVID19_Family-Survey.pdf
- 37 Nationwide Survey: Childcare in the Time of Coronavirus <https://bipartisanpolicy.org/blog/nationwide-survey-child-care-in-the-time-of-coronavirus/>
- 38 The big factor holding back the U.S. economic recovery: Childcare. July 3, 2020 <https://www.washingtonpost.com/business/2020/07/03/big-factor-holding-back-us-economic-recovery-child-care/>
- 39 Family Perspective COVID-19 Survey. Strategies for Children http://www.strategiesforchildren.org/COVID-19/COVID19_Family-Survey.pdf
- 40 Temperature Checks And No Sharing: Here's What Childcare Could Look Like When It Reopens <https://www.wbur.org/edify/2020/06/02/child-care-coronavirus-regulations>
- 41 Simon Workman, "Where Does Your Childcare Dollar Go?" (Washington: Center for American Progress, 2018), available at <https://www.americanprogress.org/issues/early-childhood/reports> <https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/>
- 42 Ibid.
- 43 Ibid.
- 44 Healthy Child Development Depends on Quality Childcare—And So Does the Economy. May 21, 2020 <https://learningpolicyinstitute.org/blog/covid-healthy-child-development-depends-quality-child-care>
- 45 Child care centers fear permanent closures amid coronavirus pandemic. <https://turnto10.com/i-team/schools-in-crisis/child-care-centers-fear-permanent-closures-amid-coronavirus-pandemic>
- 46 U.S. Bureau of Labor Statistics Beta Labs, "BLS Data Viewer: Childcare and nursery school in U.S. city average, all urban consumers, seasonally adjusted," available at <https://beta.bls.gov/dataViewer/view/timeseries/CUSR0000SEEB03> (last accessed March 2019).
- Drew DeSilver, "For most U.S. workers, real wages have barely budged in decades," Pew Research Center, August 7, 2018, available at <http://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/>
- 47 Childcare in State Economies. 2019 Update. Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 48 Childcare in State Economies. 2019 Update. Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 49 Nina Chien, "Factsheet: Estimates of Childcare Eligibility and Receipt for Fiscal Year 2016" (Washington: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, 2019), available at <https://aspe.hhs.gov/system/files/pdf/262926/CY2016-Child-Care-Subsidy-Eligibility.pdf>
- 50 Leila Schochet and Rasheed Malik, "2 Million Parents Forced to Make Career Sacrifices Due to Problems with Childcare," Center for American Progress, September 13, 2017, available at <https://www.americanprogress.org/issues/early-childhood/news/2017/09/13/438838/2-million-parents-forced-make-career-sacrifices-due-problems-child-care/>
- 51 Kim Parker, "Women more than men adjust their careers for family life," Pew Research Center, October 1, 2015, available at <http://www.pewresearch.org/fact-tank/2015/10/01/women-more-than-men-adjust-their-careers-for-family-life/>
- 52 see: Ziliak, James P., Charles Hokayem, and Bradley Hardy. June 2008. "Childcare 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 childcare costs to parental employment, see: Morrissey, Taryn W. 2017. "Childcare and Parental Labor Force Participation: A Review of the Research," *Review of Economics of the Household* 15 (1): pp. 1-24.
- 53 Coronavirus Is Killing the Working Mother <https://www.rollingstone.com/culture/culture-features/working-motherhood-covid-19-coronavirus-1023609/>
- 54 The Importance of Childcare in Reopening the Economy. <https://econofact.org/the-importance-of-childcare-in-reopening-the-economy>
- 55 Maria Gadoy, "What Do Coronavirus Racial Disparities Look Like State By State?," NPR, May 30, 2020, available at <https://www.npr.org/sections/health-shots/2020/05/30/865413079/what-do-coronavirus-racial-disparities-look-like-state-by-state>
- 56 Washeed Malik and others, "America's Childcare Deserts in 2018" (Washington: Center for American Progress, 2018), available at <https://www.americanprogress.org/issues/early-childhood/reports/2018/12/06/461643/americas-child-care-deserts-2018/>.
- 57 Tracking Massachusetts' Child Care Deserts. <https://eyeonearlyeducation.org/2017/10/26/tracking-massachusetts-child-care-deserts/>
- 58 The Importance of Childcare in Reopening the Economy. <https://econofact.org/the-importance-of-childcare-in-reopening-the-economy>
- 59 Childcare in State Economies. 2019 Update." By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 60 Nationwide Survey: Childcare in the Time of Coronavirus <https://bipartisanpolicy.org/blog/nationwide-survey-child-care-in-the-time-of-coronavirus/>
- 61 Ibid.
- 62 From the Front Lines The Ongoing Effect of the Pandemic on Childcare. April 17, 2020. https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/naeyc_coronavirus_ongoingeffectsonchildcare.pdf
- 63 Childcare & the Paycheck Protection Program May 12, 2020 https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/our-work/public-policy-advocacy/child_care_and_the_paycheck_protection_program.pdf
- 64 How The U.S. Is Distributing Airline Bailout Funds In COVID-19 Relief Deal <https://www.forbes.com/sites/willhorton1/2020/04/15/how-the-us-is-distributing-airline-bailout-funds-in-covid-19-relief-deal/#4c5dabdc63a1>
- 65 State by State Use of CARES Act Supplemental CCDBG Funds, May 1 2020 <https://bipartisanpolicy.org/blog/state-by-state-use-of-cares-act-supplemental-ccdbg-funds/>
- 66 Childcare Program Financial Support for Providers During COVID-19 Closure Period <https://dcf.vermont.gov/sites/dcf/files/CDD/Docs/COVID/Financial-Supports-for-programs-during-COVID19-closure-period-FINAL.pdf>
- 67 Child care owners say new regulations will hike parents' fees, put them out of business <https://www.bostonglobe.com/2020/06/05/metro/child-care-owners-say-new-regulations-will-hike-parents-fees-put-them-out-business/>
- 68 Ibid.

- 69 Childcare and Development Fund Statistics. Published: January 28, 2014 <https://www.acf.hhs.gov/occ/resource/ccdf-statistics>
- 70 Unemployment Insurance Provisions in the CARES Act <https://crsreports.congress.gov/product/pdf/IF/IF11475>
- 71 <https://www.dol.gov/agencies/whd/pandemic/ffcra-questions>
- 72 State Paid Family and Medical Leave Programs Helped a Surge of Workers Affected by the COVID-19 Pandemic. https://www.urban.org/sites/default/files/publication/102325/state-paid-family-and-medical-leave-programs-helped-a-surge-of-workers-affected-by-the-covid-19-pandemic_0.pdf
- 73 WORKING PAPER · NO. 2020-46 Childcare Obligations Will Constrain Many Workers When Reopening the US Economy Jonathan I. Dingel, Christina Patterson, and Joseph Vavra APRIL 2020. Becker Friedman Institute, University of Chicago https://bfi.uchicago.edu/wp-content/uploads/BFI_WP_202046.pdf
- 74 Ibid.
- 75 The Short-Run Macro Implications of School and Child-Care Closures. <http://ftp.iza.org/dp13353.pdf>
- 76 Quantifying the Immediate Effects of the COVID-19 Pandemic on Scientists <https://arxiv.org/ftp/arxiv/papers/2005/2005.11358.pdf>
- 77 National Women’s Law Center, “Businesses Have a Critical Role in Supporting Public Investments in Childcare” (Washington: 2017), available at <https://nwlc-ci49tixgw51bab.stackpathdns.com/wp-content/uploads/2017/09/Businesses-Have-A-Critical-Role-in-Supporting-Public-Investments-in-Child-Care.pdf>
- 78 Schochet and Malik, “2 Million Parents Forced to Make Career Sacrifices Due to Problems with Childcare.”
- 79 “Childcare in State Economies. 2019 Update.” By the Committee for Economic Development of The Conference Board. <https://www.ced.org/assets/reports/childcareimpact/181104%20CCSE%20Report%20Jan30.pdf>
- 80 Sandra Bishop-Josef and others, “Want to Grow the Economy? Fix the Childcare Crisis” (Washington: Council for Strong America, 2019), available at <https://strongnation.s3.amazonaws.com/documents/602/83bb2275-ce07-4d74-bcee-ff6178daf6bd.pdf?1547054862&inline;%20filename=%22Want%20to%20Grow%20the%20Economy%20Fix%20the%20Child%20Care%20Crisis.pdf%22>
- 81 Survey of businesses conducted by the Connecticut Office of Early Childhood
- 82 Childcare is Key to Our Economic Recovery <https://www.clasp.org/publications/report/brief/child-care-key-our-economic-recovery>
- 83 Sandra Bishop-Josef and others, “Want to Grow the Economy? Fix the Childcare Crisis” (Washington: Council for Strong America, 2019), available at <https://strongnation.s3.amazonaws.com/documents/602/83bb2275-ce07-4d74-bcee-ff6178daf6bd.pdf?1547054862&inline;%20filename=%22Want%20to%20Grow%20the%20Economy%20Fix%20the%20Child%20Care%20Crisis.pdf%22>.
- 84 An Open Letter from Economists in Support of Childcare Relief <https://cdn.americanprogress.org/content/uploads/2020/06/18140211/Economists-letter.pdf>
- 85 The big factor holding back the U.S. economic recovery: Childcare <https://www.washingtonpost.com/business/2020/07/03/big-factor-holding-back-us-economic-recovery-child-care/>
- 86 Bailout sought for child-care industry <https://www.bostonglobe.com/2020/05/05/metro/bailout-sought-child-care-industry/>
- 87 What Parents Can Learn From Childcare Centers That Stayed Open During Lockdowns <https://www.npr.org/2020/06/24/882316641/what-parents-can-learn-from-child-care-centers-that-stayed-open-during-lockdowns>
- 88 What We Know About Children and Covid-19 What We Know About Children and Covid-19 <https://www.wsj.com/articles/what-we-know-about-children-and-covid-19-11594483200>
- 89 Filling in the Blanks: National Research Needs to Guide Decisions about Reopening Schools in the United States. <https://www.centerforhealthsecurity.org/our-work/publications/2020/filling-in-the-blanks-national-research-needs-to-guide-decisions-about-reopening-schools-in-the-united-states>
- 90 COVID-19 Planning Considerations: Guidance for School Re-entry. <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>
- 91 Ibid.
- 92 James Morton, chief executive officer of Boston’s YMCA from ‘This Summer Is Different’: As Coronavirus Restrictions Ease, YMCA Summer Camps Adjust <https://www.wbur.org/news/2020/05/24/coronavirus-restrictions-summer-camps>
- 93 <https://www.cnn.com/2020/06/16/success/working-parents-pandemic-employers/index.html>

Global Resilience Institute
at Northeastern University

globalresilience.northeastern.edu