Rixa Evershed has been an early educator for more than 20 years. She is currently the early education director at the Nature Nurtures Farm in Olympia, Washington, where children spend their earliest years learning in the classroom and on the nearby 23-acre farm. Forty percent of children in the program are from low-income families who receive child care subsidies from the state and federal government to defray tuition costs.

When the coronavirus pandemic caused enrollment to drop substantially in March, Nature Nurtures Farm had to close its doors. Many enrolled families were already struggling financially, and the pandemic has only exacerbated their financial woes. With families unable to pay tuition, staff members were laid off. Nature Nurtures Farm partially reopened its early childhood program on June 1 but faces a $26,000 deficit because fewer children are enrolled due to public health guidance that mandates smaller group sizes. The future of the program remains uncertain.1

As COVID-19 and stay-at-home orders to protect public health continue, a quiet crisis is unfolding in child care programs across the country. At the outset of the pandemic, nearly two-thirds of child care providers said they could not survive a closure that extended longer than one month.2 The Center for American Progress estimates that the country could lose half of its licensed child care capacity without government intervention.3 Millions of American workers, hoping to get back to their jobs once the public health risk has sufficiently decreased, will not be able to do so until they have safe, reliable, and affordable child care. This has major consequences for the reopening of the economy but also has important implications for income and educational inequality, racial equity, geographic equity, and a potentially significant decline in the number of mothers in the labor force.

When policymakers consider proposals to stabilize and reopen the wider economy, it is important to assess the communities where there may be the greatest immediate need for child care investment. This new analysis provides a tool—that illustrates the state of child care supply before the coronavirus pandemic to show how child care closures will disproportionately affect some communities. Using a new driving-distance-based meth-
odology—which improves on CAP’s previous area-based analyses by ignoring arbitrary administrative boundaries and adjusting supply to account for nearby demand—these maps show the density of families with young children and a new index of child care supply within a 20-minute drive. Users now have the option of comparing child care deserts with local poverty rates, median family incomes, median home values, share of the population with a four-year college degree, and the Black or African American and Hispanic shares of the population.

Without a significant public investment in a dedicated child care stabilization fund, child care closures will be concentrated in low-income and middle-income neighborhoods and many families will be unable to access child care assistance during a period of record-high unemployment. This could, in turn, make the reopening of the broader economy smoother in areas with adequate child care supply while businesses whose employees live in child care deserts may struggle to get parents back to work. But with the proper public investment, child care services can help America get back to work safely. Working parents are eager to return to work, but they can do so only with the confidence that their children will be in a safe and reliable setting. Young children, too, look forward to rejoining their teachers and caregivers, but these programs will not be able to return unless their public value is matched by long overdue public support.

A new approach to child care deserts

Since 2016, the Center for American Progress has studied the supply of licensed child care in the United States, identifying national correlations between population demographics and child care supply. Using an original national dataset of licensed and registered child care providers, a 2018 CAP analysis found that more than half of American families with young children live in a child care desert—defined as a census tract with more than three children under age 5 for every licensed child care slot.

However useful census tracts may be for assessing the scale of the problem, this approach has many limitations at the local level. The core problem is that families do not pay attention to arbitrary census tract boundaries when choosing their child care. A more practical consideration is time spent getting to and from child care each day. Additionally, while the U.S. Census Bureau makes estimates about the number of young children living in each census tract, these estimates are published with large margins of error due to sample size limitations, making capacity to population comparisons less accurate. Further, these new estimates demonstrate that access to child care can vary widely for families living in the same census tract or county.
The new interactive maps at www.childcaredeserts.org and the underlying data that form the basis of this analysis are derived from a new, cutting-edge methodology for measuring and representing child care supply. This approach to measuring child care supply was introduced by Elizabeth E. Davis, Won F. Lee, and Aaron Sojourner in their article “Family-centered measures of access to early care and education,” published in Early Childhood Research Quarterly last year. In collaboration with this research team at the University of Minnesota, CAP is now able to analyze and symbolize variation in local child care supply while adjusting for population density and without regard for arbitrary administrative boundaries. For more information about the methodology employed by the authors and collaborators, please refer to “Measuring Child Care Supply Using the Enhanced Two-Stage Floating Catchment Area Method.”

In a nutshell, this analysis adds up the capacity of all the child care providers near a given location and then adjusts that measure of supply to account for potential nearby demand based on the population of young children living near each provider. Child care options that are closer to families receive a greater weight than those farther away, incorporating the real-world proximity of providers into the analysis. Each dot on the map represents 10 families with a child under age 6 and is assigned an adjusted child care supply metric, typically a number from 0 to 1. A precise interpretation of this child care supply index is discussed in detail in the methodological brief linked in Endnote 6.
America’s child care shortages will not affect all families equally

As with many other aspects of social and economic inequality, the coronavirus pandemic has underscored large differences in proximity and access to licensed child care across income and racial lines. COVID-19 appears to have taken a greater toll on Hispanic and Black communities, both in terms of the public health threat and the economic impact. Prior to the pandemic, most child care deserts were in low- and middle-income communities, including many predominantly Hispanic neighborhoods, and were practically ubiquitous across rural America. Programs such as Nature Nurtures Farm that largely serve low-income families find themselves without revenue during the pandemic.

Child care businesses operate with high costs, tight revenues, and slim operating margins, even though many child care educators are paid near-poverty wages. This is because the core factor that drives the quality of care—low child-to-staff ratios—means that these programs are highly labor intensive without economies of scale. There is no automation revolution or technological fix that can lower the cost of providing quality child care. Most child care revenues come from parental fees, which puts a sizable dent in working families’ budgets. According to a CAP analysis of family expenditures on licensed child care, the typical working family with a child under age 5 spent more than $12,000 on child care in 2015. But in many communities, there are not enough families who can cover the full cost of child care, and child care subsidies provided by the state and federal government reach just 1 in every 6 eligible children.

This new detailed analysis of child care supply shows how child care deserts interact with the economic, demographic, and geographic characteristics of an area. These associations indicate that the developing and expanding child care crisis is likely to have a greater impact on low- and middle-income communities, Black and Hispanic families, and rural families.

Low- and middle-income communities

Prior to the pandemic, middle-income communities showed the lowest levels of local child care capacity relative to estimated demand. Interestingly, low-income neighborhoods have slightly more child care capacity than middle-income areas, likely boosted by the federal child care subsidy program, the Head Start program, and state or municipally provided pre-K. But high-income areas have the most child care supply compared with middle- and lower-income areas, as wealthier parents are able to pay the full cost of licensed care. In fact, a recent CAP study found that high-income families are nearly four times as likely to send their infant or toddler to a licensed child care program than low-income parents, and more than twice as likely to send their preschooler to a licensed program.
Communities that already lacked sufficient child care before the coronavirus are likely to be especially affected by the crisis as unemployment hits these communities harder and families are less likely to have savings to weather the economic downturn. Many of these communities also include low-wage workers deemed essential during the pandemic, such as health technologists, construction workers, sanitation workers, and those in the grocery and retail industries. Workers deemed essential during the pandemic are more likely to live below the federal poverty level and have children in the home, making child care both unaffordable and necessary. Those who work in the gig economy, informal work, or with reduced income but not job loss may not qualify for some of financial supports such as unemployment insurance. Therefore, child care providers in communities with a high number of families living paycheck to paycheck face greater demand for child care from essential workers but also see steep decreases in their revenue as other families suffer income or job losses.

By contrast, many child care businesses in high-income areas that are able to continue collecting tuition during their coronavirus closure will have an easier path to reopening. A recent CAP analysis found that more than three-quarters of high-income working families pay for child care, with an average annual expenditure of nearly $19,000. Even while they spend more on care, these high-income families spend much less as a proportion of their total income, so they are better able to pay their child care fees and tuition during the pandemic closures.

Many child care providers in low- and middle-income neighborhoods and towns face prolonged revenue interruption that could lead to permanent closure. Even among states that are reopening businesses and child care, child care providers must have social distancing measures in place that increase costs and reduce the number of children—and thus revenue—for child care providers. Federal spending directed at small businesses, such as the Paycheck Protection Program (PPP) has been mostly inaccessible and unaffordable for child care providers, who are less likely to have a preexisting relationship with a bank or the administrative capacity to apply for and secure a loan.

Hispanic and Black families
This research suggests that areas of the country with Black and Hispanic residents are also likely to experience worsening child care deserts during the pandemic, based on conditions that previously existed. Consistent with previous child care deserts analysis, this new research confirms that predominantly Hispanic neighborhoods tend to have relatively few licensed child care providers. One question that researchers have tried to answer is whether Hispanic communities and families exhibit less demand for licensed child care. According to the most recent nationally representative survey of families, Hispanic parents express similar perceptions of center-based child care as other racial and ethnic groups. One possibility is that Hispanic families have less need for child care during traditional
hours and may have greater need for nontraditional child care, in the early mornings or late evenings.\textsuperscript{20} Regardless of the reason, it appears that Hispanic communities are consistently underserved by the licensed child care system and do not have the same array of child care options as other racial and ethnic groups.

While, on average, predominantly Black or African American neighborhoods tend to have more local child care supply than other groups, this is not true in all cases. For example, the city of Detroit is a vast child care desert and is approximately 80 percent Black or African American.\textsuperscript{21} Meanwhile, the surrounding suburbs, which are mostly white, affluent, and highly educated, have abundant licensed child care.

Both Black and Hispanic communities are more likely to have serious underlying medical conditions due, in part, to decades of systematic inequality in American economic, housing, and health care systems. This has put them at greater risk of complications from the coronavirus and caused them to suffer disproportionately during this pandemic.\textsuperscript{22} Because of occupational segregation, economic exploitation, and employment discrimination, these communities also experience greater hardships during an economic recession.\textsuperscript{23} In fact, Black and Hispanic unemployment has surged even higher than the historic levels of overall unemployment, especially for Black women and Latinas.\textsuperscript{24} At the same time, many people of color are in occupations that are deemed essential. For example, the most common occupations for Black women and Latinas include nursing and personal care, housekeeping and sanitation, and cashiers.\textsuperscript{25} A pattern emerges that parallels inequality based on income: Black and Latinx communities have fewer resources to pay for child care during economic recovery, while some families need child care to perform essential jobs. Child care providers may also be less able to access small-business loans such as those available through the PPP due to discrimination in
banking practices, the wealth gap, and higher debt. Without a historic federal investment in reliable and quality child care, parents in these communities may have a very difficult reentry into the labor market.

Rural families
While COVID-19 has hit every state in the country, there have been fewer reported cases in rural parts of America where the virus has been slower to spread. Yet some of these areas are experiencing increases in cases, and the potential for future outbreaks is high. Additionally, rural areas typically have fewer hospitals, which could prolong the health and economic impacts, resulting in child care programs experiencing declines in revenue for an extended period of time.

Before the pandemic, rural families had, on average, the fewest child care slots relative to demand among all geographic groups. Rural families tend to rely more on home-based child care providers, since there are fewer child care centers in rural communities. However, family child care homes are only licensed to serve from 6 to 12 children, which often results in an inability to meet demand. One notable exception, however, is that high-income rural areas have levels of licensed child care comparable to other, more densely populated high-income areas, demonstrating once again that the reliance on parent fees to support the child care industry creates inequities.

Following the last recession, more than 10 years ago, rural areas had a much slower economic recovery than metropolitan areas. Some economists are concerned that without federal aid to rural areas, this inequality will only increase during the coronavirus pandemic, leaving rural towns even further behind metro areas. In addition, rural areas have lower rates of maternal labor force participation, which could make some households more vulnerable to unemployment if they rely on a sole breadwinner. Without a large investment in child care, parental employment in these areas could fall even more than in metro areas.

Child care supply directly affects working mothers

Previous CAP analyses of child care deserts found this supply shortage is associated with maternal labor force participation (MLFP) rates roughly 3 percentage points lower than the participation rates in neighborhoods with adequate child care supply. This difference was not observed in fathers’ labor force participation rates. This new analysis affirms these findings, finding that maternal labor force participation among communities in the bottom quartile of licensed child care supply is 2.5 percentage points lower than MLFP in communities from the top quartile of child care supply. Furthermore, areas in the top fifth percentile for child care supply have MLFP rates that are nearly 4 percentage points higher than areas with the least child care supply.
The coronavirus has exacerbated the work-family dynamic for many mothers, as they do more unpaid caregiving during child care and school closures. A recent CAP analysis of the 2016 Early Childhood Program Participation Survey found that half of American families reported difficulty in finding child care before the pandemic. Among the families that reported difficulty finding a child care program, there was a 12 percentage point decline in the likelihood of employment for mothers but no measurable impact on the likelihood that fathers worked. If schools and child care programs are still closed as parents are expected to go back to work, it may result in many fewer women in the post-COVID-19 workforce.

Given that 41 percent of mothers are the sole or primary breadwinner in their family, bringing in half of household income or more, this trend could jeopardize family economic security. It could put women who have experienced job loss in greater financial peril, particularly Black women and Latinas with higher unemployment rates and who often have more difficulty finding jobs because they face the added burden of racial discrimination in the job market. The United States cannot afford a decline in women's labor force participation. Women drive the economy as a whole and it is women's earnings that have driven economic gains for middle-class families over the past 50 years. Between 1979 and 2013, women's labor force participation resulted in an additional $1.7 trillion in economic activity. A large-scale federal investment in child care is critical to economic growth, supported by women's labor force participation.

Conclusion

Child care is essential for families and for the broader economy. This was true before the coronavirus crisis and may be even more widely accepted now that millions of people are working from home or laid off or furloughed until it is safe for most businesses to reopen. But the precarious state of the child care sector prior to this disruption cannot be overstated. Even in a good economy, child care programs and families with young children have a hard time financing high costs with little public funding. If the United States allows this critical piece of economic infrastructure to fail, the landscape of child care will look vastly different—and not for the better.

Without federal intervention, it is possible that licensed, reliable, high-quality child care will become a privilege of the wealthy, while millions of young children will end up in care of uncertain safety, reliability, and quality. Child care deserts will become the norm, holding back millions of working families, particularly working mothers, in the middle-class communities that were already falling behind economically prior to the pandemic.
This country is at a major pivot point, facing a potentially decimated child care system that would prevent many parents from returning to work. This moment emphasizes how deeply Americans rely on one another to make this world-leading economy work. Leaders who understand this fact should use it to guide bold policy and funding decisions that support broader access to quality, affordable child care.

Rasheed Malik is a senior policy analyst for Early Childhood Policy at the Center for American Progress. Katie Hamm is the vice president of Early Childhood Policy at the Center. Won Lee is a research analyst at Stanford University. Elizabeth E. Davis is a professor of applied economics at the University of Minnesota. Aaron Sojourner is an associate professor at the University of Minnesota’s Carlson School of Management.


33 Malik and others, "America's Child Care Deserts in 2018."

34 Authors' calculations based on state administrative data.

35 Ibid.


