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HISTORIC CRISIS, HISTORIC OPPORTUNITY: USING EVIDENCE TO MITIGATE THE EFFECTS OF THE COVID-19 CRISIS ON YOUNG CHILDREN AND EARLY CARE AND EDUCATION PROGRAMS

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INTRODUCTION

The COVID-19 crisis has brought unprecedented challenges to the high-quality early care and education (ECE) experiences that are essential for young children to thrive.¹ Throughout the pandemic, early childhood policymakers had to quickly make high-stakes decisions with significant consequences for young children and the ECE programs that serve them. They oftentimes did so with little data or evidence to guide them. The issue wasn't a lack of evidence. In fact, researchers around the country wrote over 300 reports to capture the impacts of the pandemic on young children and ECE programs. But the sheer volume of reports and findings were oftentimes overwhelming, especially for leaders inundated with urgent, day-to-day demands. They lacked the time and bandwidth to find, sort, read, and reflect on the evidence.

As the United States starts to recover from the pandemic, ECE leaders continue to need a clear understanding of the pandemic's impact both on young children's learning and on the ECE programs and teachers that play a critical role in the lives of young children, families, and the U.S. economy. To meet this need, our team of early childhood experts synthesized findings from 76 high-quality studies,² spanning 16 national studies, 45 studies from 31 states, and 15 local studies.³ We then collaborated with ECE policy and practice leaders from multiple states to identify actionable, evidence-backed, and equity-centered solutions for addressing young children's immediate needs, stabilizing hard-hit ECE programs, and mitigating longer-term ramifications of the crisis.

Our findings indicate that the pandemic had profound impacts both on children and on the programs and educators that serve them. Due to pre-pandemic systemic inequities, these effects were not equally born. Children from families with low incomes, children of color, and dual language learners (DLLs) bore more of the brunt of the crisis than their peers. Similarly, due to longstanding inequities in public investments, family child care homes and child care centers suffered greater impacts than Head Start programs and public schools.

Understanding the scope and nature of the impacts is essential for leveraging the Biden administration's historic investments in child care, early education, and K-12 settings. The American Rescue Plan signed into law in March 2021 was the largest public investment in early care and education in U.S. history.⁴ The Biden administration's American Jobs Plan would provide another \$25 billion to build child care facilities, long in short supply.⁵ And the American Families Plan released in April 2021 would reduce low- and middle-income parents' child care expenses, fund universal preschool, invest in early educators, and improve quality across the range of ECE programs in which children learn and grow.⁶ Together, these investments present a historic opportunity to both address COVID's immediate impacts and to tackle longstanding inequities.

This synthesis provides clear evidence on the pandemic's impact for children, programs, and educators coupled with concrete policy recommendations. In the short term, it aims to help policymakers make evidenceinformed choices about how to leverage new resources. Ultimately, it aims to support efforts to build a stronger ECE system that meets the needs of *all* children and families and that supports *all* ECE programs and teachers to provide the high-quality learning opportunities young children need to thrive.

IMPACT OF THE COVID-19 CRISIS ON YOUNG CHILDREN'S EDUCATIONAL EXPERIENCES AND OUTCOMES

Our systematic review identified 63 high-quality studies (14 national, 38 conducted in 29 states, and 11 local) on the effects of the COVID-19 crisis on young children's educational experiences and learning outcomes (see Figure 1). Of the 63 studies, 18 include children in family child care homes, 12 in Head Start, 22 in center-based programs, and 24 in public-school-based programs for preschoolers through second graders.⁷ Below, we summarize key findings from this research, first as they relate to children's educational experiences and then their learning outcomes.

FIGURE 1: Evidence on the effects of the COVID-19 crisis on young children's educational experiences and outcomes represents states and localities across the country



Note: Our review also included 14 national studies and 2 local studies in unspecified locations (1 study in a large U.S. city and 1 study in 5 districts in the South, Southwest, and West).

EDUCATIONAL EXPERIENCES

The COVID-19 crisis upended children's ECE experiences. In spring 2020, 45 states issued stayat-home orders. Nearly all states shuttered their public school buildings, while 33 states allowed child care facilities to remain open and another 16 states and DC allowed them to remain open to serve the children of essential workers. Overall, 63% of ECE centers and 27% of family child care homes closed.⁸ In summer and fall of 2020, programs began to reopen, though many children who attended public school programs experienced remote and/or hybrid instruction throughout the 2020-2021 school year. As of March 2021, survey data from 46 states showed that about half of public elementary schools were fully in-person, 36% were hybrid, and 12% were remote only.⁹

We identified 56 studies (36 state, 10 local, 10 national) that captured these disruptions. Findings across them show that enrollment patterns and learning experiences differ substantially by child age, program type, and by whether the program was in-person, hybrid, or remote-only.

ECE ENROLLMENT PLUMMETED.

Across nearly all studies that addressed it, ECE enrollment fell dramatically during the crisis, well beyond the period of the initial shutdown in spring 2020 and across the full early childhood age span (0-8). These declines represent substantial loss of learning opportunities for young children. In one nationally representative study early in the crisis, only 10% of 3-to-5-year-old children continued in the same program on the same schedule they had before the pandemic.¹⁰ Nationally, preschool enrollment for 3-year-olds fell from 51% before the pandemic to 39% in December 2020. For 4-year-olds, enrollment fell from 71% to 54%.¹¹ Although national data on kindergarten enrollment drops are not available, evidence from states shows kindergarten enrollment drops were much smaller than for preschool but still guite substantial and much larger than other K-12 grades. For example, in Florida, preschool enrollment declined 34%, about three times the decline in kindergarten enrollment.¹² In Virginia, there were drops of 20% in preschool enrollment and 13% in kindergarten enrollment, compared to much smaller drops of 4-6% in grades 1-5.¹³

FIGURE 2: ECE enrollment declined during the crisis



Source: Bassok and Shapiro, 2021; Early Milestones CO, 2020; Greenberg, 2021; Sonnier, Cope, Oakey-Frost, and Lewis, 2021.

Reasons for declines in enrollment were similar across studies: group size restrictions to enhance safety, provider and parent concerns about contracting the virus, changes in family care needs and/or ability to afford care due to job loss, and parents not wanting their young child to participate in remote learning.¹⁴

ECE ATTENDANCE DROPPED SUBSTANTIALLY.

Notably, even among those who were enrolled, attendance appears to have dropped.¹⁵ For example, in an analysis of Ohio elementary schools, 35% of enrolled children were chronically absent (i.e., missing 10% or more of the school year), versus 19% in the previous school year.¹⁶ Interestingly, a study that included nearly half a million children in five different districts in the South, Southwest, and West found large upticks in rates of both perfect attendance and chronic absenteeism.¹⁷

ENROLLMENT DECLINES VARIED BY PROGRAM TYPE.

Enrollment declines were not uniform across ECE program types. Family child care homes, for example, were more likely to be open in-person throughout the crisis than center-based and public-school-based programs and tended to see much smaller enrollment declines. For example, in North Carolina, enrollment fell 41% in child care centers and 19% in family child care homes.¹⁸ In Colorado, among ECE programs reporting an increase in enrollment in summer 2020 after the initial shutdown period, 59% were family child care homes, 39% were centers, and 1% were public school preschool programs.¹⁹

ENROLLMENT DROPS VARIED BY FAMILY RACE/ETHNICITY, HOME LANGUAGE, AND INCOME.

Across ECE program types, enrollment drops appear larger among groups that are typically marginalized in the U.S. education system. For example, in California in summer 2020, DLLs were more likely than their peers to have left their pre-pandemic care program, with disparities particularly pronounced for those in child care centers compared to family child care homes.²⁰ A national survey showed that by fall 2020, preschool participation including remote services



FIGURE 3: Florida's preschool enrollment drops varied by race/ethnicity, disability status, home language, and income

Source: Greenberg, 2021.

Note: Drops have been adjusted for pre-pandemic trends in enrollment for each group.

was 35% for children from families with income under \$25,000, compared to 48% for children from higher-income families.²¹ In public school preschool programs in Florida, enrollment drops were larger for children with disabilities, DLLs, Asian, Black, Latino, and Native American students.²² Similarly, in Virginia, enrollment drops in preschool programs in public schools were more pronounced for students who were economically disadvantaged, Black, or Hispanic than their peers. In contrast, among Virginia kindergarteners, the largest drops were among White children.²³

No study in our review systematically tracked the care and education experiences of children who changed ECE care arrangements due to the pandemic, though it is likely those experiences varied considerably by family resources. In a qualitative study in Oregon that included Black, Latino, and Native American parents, parents in very rural areas, and parents of children with special needs, parents who changed care arrangements reported relying on a patchwork of support from family (including adolescent children), friends, and neighbors during the crisis.²⁴

REMOTE-ONLY SETTINGS SAW STEEPER DROPS.

Nationally, in fall 2020, 37% of K-2 students attended in-person school, 15% hybrid, and 48% remote only, due to both district decisions and family preferences.²⁵ Enrollment drops were generally steeper in remote-only and hybrid programs. For example, in Virginia, enrollment drops in public-school-based preschool and kindergarten programs were almost twice as large in districts with fully remote instruction.²⁶

ECE PROGRAMS USED INNOVATIVE APPROACHES TO FAMILY ENGAGEMENT, PARTICULARLY FOR REMOTE LEARNERS.

A consistent theme across studies is programs trying to determine the best balance for engaging families in their young children's learning without overwhelming them given the many other demands on their time. Strategies included checking in with parents from their cars when they were not allowed inside ECE programs,²⁷ staying in contact with families (including those no longer enrolled) via regular phone and email check ins,²⁸ providing direct material supports like diapers and food or information for accessing material supports,²⁹ and providing learning materials and/ or remote learning.³⁰

FIGURE 4: National K-2 attendance spanned in-person, remote-only, and hybrid settings in fall 2020



Source: Henderson, Peterson, and West, 2021.

DESPITE EARLY EDUCATORS' EFFORTS, REMOTE LEARNING WAS DIFFICULT FOR FAMILIES AND CHILDREN.

Nearly half of parents whose preschool-aged children were receiving remote or hybrid instruction reported feeling very overwhelmed, and another 23% felt moderately overwhelmed.³¹ Internet access continued to be a challenge in some communities both early in the crisis and into the 2020-2021 school year.³² In Louisiana, over half of remote/hybrid ECE teachers reported that at least one child in their class did not have reliable internet access and 13% reported that internet access constrained the participation of many or all of their students.³³

THE QUALITY OF YOUNG CHILDREN'S IN-PERSON LEARNING EXPERIENCES APPEARS TO HAVE DECLINED, THOUGH THERE WERE SILVER LININGS.

Changes to health and safety practices in programs operating in person were widely reported. These changes likely had implications for children's cognitive, academic, and socioemotional learning. For example, teachers reported spending more time on cleaning and hand washing practices, taking away time from instructional planning and interactions with children.³⁴ Teachers also reported more individual activities and fewer center-based choice activities—likely net negatives for young children's socio-emotional and language development.³⁵ One Virginia preschool teacher expressed: "My students are learning less this year about playing with their peers, appropriate social skills, and emotional reactions and responses because there is no opportunity for conflict that creates teachable moments in preschool."³⁶

Due to pandemic restrictions, there are no studies that were able to directly observe how these changes impacted children's learning experiences. However, findings from surveys of child care and preschool teachers indicate perceived declines in the quality of teacher-child interactions for both in-person and hybrid learning.³⁷ Some of these teachers also noted that social distancing and rules restricting children's sharing of materials stymied socio-emotional learning opportunities in the classroom in particular (e.g., fewer opportunities for learning to share, more difficult for children to make friends).





However, some changes to learning experiences and environments in the pandemic appear positive. Studies widely reported smaller class sizes—a negative for many programs' financial stability but a potential benefit for students' in-person learning. Arkansas ECE providers teaching in-person reported that children responded very well to the increased structure in preschool classrooms required by enhanced safety practices.³⁸ Increased outdoor time—another potential benefit for students—was also reported in a study of family child care homes in four states.³⁹ In nationally representative data, 80% of parents were very satisfied with the in-person learning their children received during the pandemic.⁴⁰

QUALITY OF REMOTE LEARNING WAS LOWER THAN IN-PERSON LEARNING.

A consistent theme across studies was how much work teachers undertook to pivot to remote instruction, yet how learning suffered nonetheless. For example, in spring 2020 about half of teachers in remote child care and school-based programs in Virginia reported declines in the quality of interactions compared to about a third of those working in person.⁴¹ Teachers reported difficulties with remote learning due to poor fit with young children's attention spans, their own challenges learning and managing new technology, and families' struggles supporting children with remote learning due to work and siblings' needs. For example, teachers in North Carolina preschool programs reported particular challenges supporting children's social and emotional development remotely versus other learning domains.⁴² Fifty-six percent of first-grade teachers in Tulsa reported motivating children to engage with remote learning was very challenging.43 One remote/hybrid early educator in Virginia noted, "It's hard to assess the virtual students' needs

and abilities when they are not in the classroom to observe and work with. Some of the students only watch pre-recorded videos and we don't know how much they are learning and what they need to work on or reinforce."44

TIME ON LEARNING DECLINED FOR MANY YOUNG CHILDREN.

A consistent theme across studies was that the move away from in-person teaching meant many children experienced less time on learning activities than before the crisis. Some of this decline was due to policy decisions. For example, in the early shutdown period, there was considerable variation in whether 0-5 ECE programs offered remote learning at all if they were no longer serving children in person. Among states that offer state-funded preschool, for example, 21 states required remote learning to be provided to all children and 21 required it for only some programs or for none.⁴⁵

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- A remote/hybrid early educator in Virginia

Even in programs providing remote learning services, however, time on learning declined relative to in-person schooling. For example, in a time-use study, parents of kindergarteners and first graders reported that their remote learners spent just over two hours per day on school-related activities, far short of the sixhour school day typical in U.S. schools before the crisis.⁴⁶ Many of these families reported that their children spent very little time on math activities in particular. For children whose preschool was closed or remote only, the majority of parents in a nationally representative survey reported that their children were participating in each of 10 different learning activities (e.g., listening to a story, reading with an adult, and math or science activities) less than once per week.⁴⁷ In fall 2020, Louisiana ECE providers reported spending only a median of about five hours per week interacting with remote learners.⁴⁸ In a survey of Washington state parents of K-5 students in February 2021, 39% of households reported that their children





spent much less time on schooling than they had before the pandemic and only 19% reported that they spent the same amount of time as before.⁴⁹

There were also differences in time on remote learning by program type. When not open for inperson services, center-based programs were more likely to provide more real-time interactions with children, such as circle time or book reading, than family child care homes.⁵⁰ Family child care homes also reported more technological and resource barriers to providing remote learning.⁵¹ Children in remote public Pre-K programs experienced more frequent learning activities than their peers in remote Head Start, private centers, or home-based programs.⁵²

FAMILIES PLAYED AN OVERSIZED ROLE IN CHILDREN'S LEARNING.

With children at home more in the crisis, familiesalready the most important support for young children's learning and development—played an even larger role in children's learning. For example, in a survey of parents of 5- to 7-yearolds in Massachusetts, virtually all parents (95%) reported doing science, language, and literacy activities with their children and 81% reported they had created a learning or lesson plan for their child, with very similar responses across family income groups.⁵³ In a nationally representative survey, parents of preschool-aged children reported reading to children (80%), telling stories (47%), singing songs (62%), teaching numbers and letters (61%), and arts and crafts activities (37%) at least three times per week. There was little variation in parent-child engagement by race/ ethnicity or by whether the child had a disability or was typically developing, though families with higher incomes (\$75K and above) reported more frequent learning activities than families with lower incomes.⁵⁴

However, likely due to the pressures of the pandemic and remote/hybrid schedules, children's screen time and time alone went up in the pandemic. A detailed time use study with preschool, kindergarten, and first grade parents found that passive screen time was the most universal daily experience for young children, reaching as high as 10 hours per day and that during school hours, preschool, kindergarten, and first grade students spent about 31% of their time doing activities on their own.⁵⁵ In Massachusetts, in spring 2020 parents of 5- to 7-year-olds reported children spending more time watching television shows or movies (64%), watching videos on the computer (47%), and playing video games (37%) than they did before the outbreak.⁵⁶

DLLS AND CHILDREN OF COLOR APPEAR TO HAVE EXPERIENCED MORE SERIOUS LEARNING DISRUPTIONS THAN THEIR PEERS, WHILE FINDINGS ARE MIXED FOR YOUNG CHILDREN WITH DISABILITIES.

Learning experiences during the pandemic differed by language, race/ethnicity, family income, and disability status. Program leaders and teachers reported more limited technology resources in DLL versus non-DLL homes and uncertainty about best practices for teaching young DLLs remotely when they lacked access to the multisensory materials and visuals that support DLLs. These problems were compounded in sites that experienced bilingual staff turnover in the pandemic.⁵⁷ Schools with more DLLs were more likely to offer remote-only learning, as were schools with the highest share of students eligible for free/reduced-price lunch. Similarly, students of color were more likely to experience remote learning than their White peers.⁵⁸ Families of color in Oregon reported feeling "unheard" and "ignored" by providers in terms of their care preferences, communication preferences, and health and safety

concerns and some parents attributed these experiences to racism and/or classism.⁵⁹

The picture was mixed for young children with disabilities. In a nationally representative sample of parents, preschoolers with IEPs were more likely to receive remote learning supports than their peers, with 37% of children with an IEP receiving full support, 39% receiving partial support, and 23% receiving no support for their learning needs.⁶⁰ Children with IEPs had higher rates of daily engagement than their peers in listening to stories, learning apps or games, visiting with a teacher by video-chat, activities with classmates by video chat, and arts and crafts.⁶¹ These findings may reflect the fact that young children with special needs are the only group with rights to educational services before kindergarten. However, in one study in three parishes in Louisiana, half of teachers in in-person programs and 81% of remote/hybrid teachers expressed concerns that young children with IEPs were not receiving necessary supports, a pattern also found in Virginia.⁶²



The students that I suspect have special needs seem like they will fall through the cracks or get left behind, especially since they haven't been identified yet and are displaying some key signs. However, it is very difficult to tell due to teaching virtually. I am not able to observe enough evidence to support my thoughts.

- A remote/hybrid teacher in Virginia

There was also concern about children with disabilities who have not yet been identified. Troublingly, in Virginia, 77% of remote/hybrid teachers were at least somewhat worried about their ability to identify children with special needs and just under half of those teaching in-person were similarly concerned.⁶³ One remote/hybrid teacher there explained: "The students that I suspect have special needs seem like they will fall through the cracks or get left behind, especially since they haven't been identified yet and are displaying some key signs. However, it is very difficult to tell due to teaching virtually. I am not able to observe enough evidence to support my thoughts."⁶⁴

EDUCATIONAL OUTCOMES

K-2 CHILDREN EXPERIENCED SETBACKS IN THEIR LEARNING.

Evidence about the pandemic's impact on young children's development is still limited, particularly for the youngest learners. Data from 16 studies conducted both nationally and in 8 states, however, suggest young children have not made the same learning gains in their literacy, math, and socioemotional skills as children in past years. Data from school-based literacy assessments in 41 states, for example, show that nearly half of kindergarteners were falling well below gradelevel benchmarks midway through the year, versus around a quarter of students in previous years.⁶⁵

Data from individual states looks similar. For example, in Virginia, 25% of children entering kindergarten statewide in fall 2020 were categorized as being at risk for reading failure, an increase of 50% from 2019.66 Statewide Ohio data shows that 48% of children had a literacy score at kindergarten entry that indicated that they were "not on track" for reading success in 3rd grade, a 22% increase from the prior year.⁶⁷ Increases in reading challenges were highest in districts offering remote schooling, though these districts also had lower rates of testing. The Ohio data also suggest growing inequality. While more children scored in the "not on track" category than in any of the last three years, more children also scored in the *top* readiness category (with declines in the middle "approaching readiness" category).

Among first and second graders, more children started the 2020-21 school year below grade level than in the recent past. Scores on in-person tests taken in largely southern states show that 7% of first graders started the school year below grade level in literacy, compared to an average of 5% over the past three years.⁶⁸ Differences were somewhat larger for children in second grade and for math skills. There was a 6 percentage point increase in children below grade level in reading for second graders. For first and second graders, there was a 6 and 10 percentage point increase in the proportion of children scoring below grade level in math, respectively.

Evidence regarding student learning *during* the 2020-21 school year is mixed. Data covering all 50 states suggests that by winter, overall performance on reading assessments taken in person by first and second graders approached what would have been expected in a typical year. In math, for second graders, scores were about three weeks behind.⁶⁹ Other evidence is more concerning: data from mostly urban areas in

41 states shows that 43% of first graders were well below grade level in literacy at mid-year, an increase of 65% from the previous year.⁷⁰ And, data from a literacy assessment given in 100 districts across 21 states showed that although first and second graders were learning at a similar rate in the fall of 2020 as they had in the fall of 2019, this growth was not enough to make up for slower growth in learning that occurred in the spring and summer of 2020.⁷¹

CHILDREN OF COLOR, DLLS, AND CHILDREN FROM FAMILIES WITH LOW INCOMES EXPERIENCED LARGER LEARNING SETBACKS.

Evidence suggests that children from historically marginalized groups have experienced larger setbacks.⁷² For example, in Virginia, the increase in kindergarteners and first graders classified as at-risk for reading failure was 1.2 to 2.5 times as high for children who are Black, Hispanic, or DLLs, and for children from families with low incomes.⁷³ In data covering mostly urban areas in 41 states,

FIGURE 8: The share of young children not meeting reading benchmarks increased during the pandemic



Source: OH data are from the Ohio Department of Education, 2021; VA data are from McGinty, Gray, Herring, Soland, and Partee, 2021; Data from 41 states are from Amplify, 2021.

increases in the proportion of students falling below grade level at mid-year in kindergarten and first grade were much larger for Black and Hispanic children than White children⁷⁴. Data from school-based assessments given in all 50 states that included K-2 students also show that Black, Hispanic, and American Indian or Alaskan Native children had smaller growth in their literacy and math skills from fall to winter than their White peers. In winter these students were 5 to 7 weeks behind expectations based on pre-COVID learning trajectories in reading, and 9 to 11 weeks behind in math. First and second grade students with disabilities and DLLs in that same study also showed slower growth than their peers.⁷⁵

DATA ON YOUNGER CHILDREN ARE SPARSE BUT ALSO RAISE CONCERNS.

We found no direct assessment data for young children prior to kindergarten. However, data from teacher surveys and qualitative data from providers raise concerns about the academic, socio-emotional, and executive function development of toddlers and preschoolers.⁷⁶ For

example, data from two large-scale surveys conducted in the fall of 2020 across child care, preschool, and Head Start programs serving 3and 4-year-olds in Virginia and Louisiana show that about 30% of teachers working in-person and 80% of teachers working in hybrid/remote programs reported that children were learning less than in previous years. About 40% of in-person teachers and 60-70% of hybrid/remote teachers reported concerns that children's social and emotional skills were developing more slowly than usual.⁷⁷ These concerns persisted into the spring of 2021: 30% of teachers working with preschool-aged children in an Arkansas survey reported that children struggled with attention more so than prior to the pandemic, and more than 60% of these teachers reported that attention difficulties caused a classroom disruption at least once a week.⁷⁸ Language development was another critical area of concern, as exemplified by a Virginia preschool teacher: "Remote learning has made it difficult to build our language skills. Often, I have a hard time hearing the students or the ways they articulate words because it is done over a computer."79



FIGURE 9: More Black and Latino than White young children fell well below grade level in the 2020-2021 school year, compared to pre-pandemic cohorts

Source: Amplify, 2021.

Note: Sample included children from 41 states.

Remote learning has made it difficult to build our language skills. Often, I have a hard time hearing the students or the ways they articulate words because it is done over a computer.

- A preschool teacher in Virginia

PARENTS ACROSS THE COUNTRY AND ACROSS AGE GROUPS EXPRESSED CONCERNS ABOUT THEIR YOUNG CHILDREN'S LEARNING AND DEVELOPMENT IN THE PANDEMIC.

A nationally representative survey of parents of preschool-aged children fielded in late 2020 showed that parents reported high levels of child behavior problems relative to similar data collected in previous years.⁸⁰ Parents reported levels of hyperactivity, conduct problems, and peer problems that were roughly 33% to 50% larger than in previous years. These findings were echoed in parent surveys of first grade parents in Tulsa⁸¹ and in national surveys of parents of children of all ages.⁸² Other studies showed that young children (ages 2 to 7) in families with more pandemic related hardships (e.g., job loss, income loss, health concerns, loss of a loved one, etc.) were showing greater challenges with wellbeing and behavior.⁸³ In these same data, parents reported that behaviors were worse on days when children experienced a disruption in school or care,⁸⁴ highlighting the particular toll of instability.

LEARNING EXPERIENCES AND LEARNING SETBACKS FOR THOSE NOT REPRESENTED IN THE DATA ARE PROBABLY MOST WORRISOME.

The existing data suggests the pandemic had worrying impacts on young children's learning, but importantly, these findings likely *understate* the pandemic's overall impact on young learners as they exclude both children not enrolled in ECE and children who were enrolled but did not participate in tests or teachers' assessments. Children of color, especially Black children, DLLs, and children from families with low incomes were more likely to be missing from assessment data than their peers.⁸⁵ And, often data only cover enrolled children attending schools in person.⁸⁶ Learning setbacks may be more profound and consequential for children whose data we currently lack.

SUMMARY OF MAIN FINDINGS ACROSS STUDIES

ACROSS 63 HIGH-QUALITY STUDIES EXAMINING THE EFFECTS OF THE PANDEMIC ON YOUNG CHILDREN'S LEARNING EXPERIENCES AND OUTCOMES, WE FIND THAT:

- Some of the necessary changes that were made to young children's in-person learning environments to enhance safety were not conducive to learning and social skill development.
- Remote/hybrid learning was challenging for children, families, and teachers and resulted in significantly less learning time and lower-quality instruction.
- Young children's learning and development suffered setbacks during the crisis.
- Effects of the crisis have not been born equally. Children of color, DLLs, and children from families with low incomes appear to have been more negatively affected. Young children with special needs may not have been identified and may not have gotten the services they needed to thrive.



IMPACT OF THE COVID-19 CRISIS ON EARLY CARE AND EDUCATION PROGRAMS

Our systematic review identified 53 high-quality studies (8 national, 33 studies conducted in 25 states, and 12 local) on the effects of the COVID-19 crisis on ECE programs and the ECE workforce (see Figure 10). Even prior to the pandemic, many ECE programs operated on very thin margins, and early educators in the U.S. often received lower wages and fewer benefits than K-12 teachers.⁸⁷ As a result, 0-5 educators are nearly 8 times more likely to be poor than K-8 teachers.⁸⁸

Unsurprisingly given this baseline, the effects of the COVID-19 pandemic on ECE programs and the ECE workforce have been profound. Below, we summarize the key takeaways from this research, first for ECE programs' stability and then working conditions for early educators.

FIGURE 10: Evidence on the effects of the COVID-19 crisis on ECE programs represents states and localities across the country



Note: Our review also included 8 national studies and 2 local studies in unspecified locations (1 study in a large U.S. city and 1 study in 5 districts in the South, Southwest, and West).

PROGRAMS' STABILITY

The COVID-19 crisis exacerbated differences in ECE funding and governance that existed long before the pandemic. We identified 43 studies (5 national, 31 from 25 states, and 7 local) that captured disruptions to ECE programs. Taken together, findings across them showed that the impacts of COVID differed substantially by program type and by time period of the pandemic. Child care centers and homes were particularly hard hit, far more so than public schools and Head Start. Publicly funded programs of all types fared better than privately funded programs because public investments helped stabilize programs as they weathered closures and drops in enrollment and attendance. Policy set the context for providers' decisions about program operating status, ability to bear the costs of new health and safety requirements and maintain quality, and capacity to apply for pandemic relief.

THE EARLY SHUTDOWN PERIOD DESTABILIZED CHILD CARE.

From March through June 2020, child care programs faced closures and uncertainty that posed a threat to their financial stability. Closure estimates vary. The supply of licensed child care shrank by 27% (136,000 slots) in Washington⁸⁹ and closures reached 55% among centers in Mississippi.⁹⁰ In Pennsylvania, 86% of all child care providers closed at some point, including 97% of centers, 80% of group child care homes, and 51% of family child care homes.⁹¹ Following stayat-home orders in many states, this period was marked by revenue loss and limited information. One provider in California reported: "We're in the dark about what we're supposed to be doing."⁹²

In contrast to instability in child care, 31 preschool programs in 22 states and Guam required all

We're in the dark about what we're supposed to be doing.

- A provider in California

sites to physically close, while an additional 17 programs in 15 states required some (generally school-based) sites to close while others (generally child care centers) could remain open.⁹³ In North Carolina, 98% of Head Start programs and 94% of school-based Pre-K sites were physically closed, with nearly all operating remote learning.⁹⁴

UNEVEN REOPENING EFFORTS AND LIMITED STABILIZATION PLANS LEFT PROGRAMS ON SHAKY FOOTING.

As stay-at-home orders lifted, programs that had remained open to serve children of essential workers saw their enrollments rise, while other programs reopened. Some providers adapted to provide school-aged child care while schools in many states remained remote-only or implemented hybrid reopening plans.⁹⁵ Still, in Hawaii, one in four child care programs remained closed in November.⁹⁶ In North Carolina, there was a 4% *decrease* in the number of child care providers in contrast to a 3% increase in the number of family child care homes through December 2020 of the crisis.⁹⁷ In North Carolina and Boston, closures were concentrated in areas with higher shares of Hispanic residents and higher shares of higher-income residents.⁹⁸ Evidence on permanent closures is still evolving.

When asked why they did not apply for early financial assistance, one provider in Connecticut replied, "No entiendo mucho de eso, me da miedo tener deudas" (I don't understand much of that, I'm afraid of having debts).

– A provider in Connecticut

We lost a lot of our private feepaying parents and with that, you lose income. Since most of our families are on a contracted slot, the [Massachusetts Department of Early Education and Care's] commitment to paying us for children, even if they were not physically coming but maintaining their enrollment, has made a major difference.

- A child care center director in Boston

Federal and state pandemic relief efforts supported all ECE providers, but reach was limited—especially in child care. In Maine, 30% of child care programs accessed Paycheck Protection Program (PPP) loans in spring 2020, including 15% of family child care homes and 65% of centers. In addition, 11% accessed EIDL (Economic Injury Disaster Loans, for small businesses), 21% accessed unemployment benefits for staff, 22% accessed unemployment for owners, and 83% received stipends and grants from state agencies.⁹⁹ When asked why they did not apply for early financial assistance, one provider in Connecticut replied, "No entiendo mucho de eso, me da miedo tener deudas" (I don't understand much of that, I'm afraid of having debts).¹⁰⁰ In Hawaii, family child care providers reported particular challenges accessing financial relief because of limited administrative capacity, misinformation, and ineligibility due to their business locations in residential space.¹⁰¹

Policy changes provided some additional, if temporary, support. For example, as of April 30, 2020, 36 states paid providers based on enrollment rather than attendance, 20 states allowed Child Care and Development Fund (CCDF) payments to go to providers that had not previously served subsidy-eligible children, 25 states served newly eligible children (e.g., children of essential workers), and 32 states eliminated or reduced family copayment requirements.¹⁰² A Boston child care center director explained how such changes were critical in her context: "We lost a lot of our private fee-paying parents and with that, you lose income. Since most of our families are on a contracted slot, the [Massachusetts Department of Early Education and Care's] commitment to paying us for children, even if they were not physically coming but maintaining their enrollment, has made a major difference."¹⁰³

Still, the vast majority of providers in all state surveys reported financial instability resulting from program closures, reduced attendance, and rising costs. In Maryland, 67% of child care businesses reported a financial loss, with most reporting \$1,000 to \$5,000 lost per week of closure and total losses of \$51 million by May 15, 2020.¹⁰⁴ In Louisiana, studies estimate collective losses of \$1.7 million by March 23, 2020 and \$245 million by January 27, 2021.¹⁰⁵ Across the country, group size restrictions, price increases on food, cleaning products, personal protective equipment (PPE), and labor to implement stringent new cleaning requirements all increased the cost of care, even as demand for care remained low in some communities.¹⁰⁶ In California, Colorado, and New York City, private-pay providers were hardest hit, while those in child care programs accepting subsidy (especially contracted providers) reported having more stable revenue, and Head Start and school-based programs reported receiving more resources than they had pre-pandemic (e.g., funds to set up internet hotspots so that children could engage in virtual learning).¹⁰⁷ Nationwide, the CARES Act increased funding for Head Start, and 31 states reported that their Pre-K budgets were unchanged, though pandemic-related cuts could be delayed until after federal relief expires.¹⁰⁸

PROGRAMS' INSTABILITY MATTERED FOR CHILDREN, FAMILIES, AND EDUCATORS.

Across all ECE program types, early educators' ability to provide quality care and young children's ability to learn depended on programs' financial stability. Some child care providers took extraordinary measures to stabilize their programs in the absence of public relief. In Pennsylvania, many family child care providers (57%), group family child care (40%), and centerbased providers (19%) reported using personal savings to pay for expenses. One Pennsylvania provider reported that she "morally would not [reduce staff wages]" to make ends meet, while another explained that "the only way this business is staying afloat is out of my personal savings."¹⁰⁹ The financial stress and uncertainty, on top of the public health emergency, created challenging working conditions that made it difficult for young children and educators to thrive.

The only way this business is staying afloat is out of my personal savings.

- A provider in Pennsylvania

WORKING CONDITIONS

Teaching young children is highly complex and stressful, even in the best and most well-supported circumstances. The COVID-19 crisis magnified the complexities and difficulties of working conditions for the early care and education workforce. We identified 18 studies (1 national, 11 studies in 17 states, and 6 local) spanning licensed family child care providers, child care centers, and publicly funded school-based preschools that examined the effects of the crisis on working conditions. Findings show that teachers' schedules changed to accommodate increased cleaning responsibilities, teachers had to navigate new instructional formats, teachers had new professional development needs, and teachers' mental health and wellbeing suffered in the crisis.

TEACHERS' SCHEDULES HAD TO CHANGE TO ACCOMMODATE CLEANING TASKS, CUTTING INTO TIME FOR CRITICAL LEARNING-RELATED TASKS.

Studies across six states and one city found that providers spent extra hours each day on new cleaning and safety protocols.¹¹⁰ For example, in Colorado, cleaning tasks were among the most frequent operational changes in child care centers, family child care homes, and preschool programs. Specifically, most programs reported increased cleaning of toys (71%), increased cleaning of space (71%), and increased handwashing (69%). Programs also implemented additional safety protocols such as conducting screening procedures and limiting families' access to classrooms, among others.¹¹¹ Providers raised several concerns about implementing new cleaning and safety protocols. For example, some family child care providers shared concerns that enforcement of COVID policies and regulations could hinder relations with parents and that turnover of teaching assistants could force programs to reduce enrollment, to avoid bringing new staff (and possible exposure) into their home.¹¹²

Extra time on cleaning and safety practices meant less time on other tasks. In Boston, the majority of community-based universal pre-K centers

The extra time spent planning, cleaning, and distancing leaves me exhausted at the end of each day.

- A preschool teacher in Virginia

reported they were planning to hire additional staff to undertake cleaning tasks.¹¹³ Providers distributing cleaning responsibilities among their existing staff with no additional support report spending less time supporting children's other care and education needs.¹¹⁴ A Virginia preschool teacher explained, "The extra time spent planning, cleaning, and distancing leaves me exhausted at the end of each day."¹¹⁵

> FIGURE 11: Most changes to teachers' schedules to increase safety in community-based Boston Pre-K programs came at a cost



Source: Guerrero-Rosada et al., 2021. Note: Data are from centers' 2020 re-opening plans.

TEACHERS HAD TO NAVIGATE NEW INSTRUCTIONAL FORMATS.

As highlighted earlier in this brief, health and safety measures led to a dramatic shift toward new formats of instruction in ECE programs, particularly remote-learning and hybrid models. These shifts too added to the stress and complexity of early educators' jobs, particularly for educators who were teaching children online and in person simultaneously.¹¹⁶ In North Carolina, for example, some school-based preschool sites reported that teachers experienced challenges accessing technology and that teachers needed access to more remote learning materials.¹¹⁷

TEACHERS HAD NEW PROFESSIONAL DEVELOPMENT NEEDS.

The new challenges and demands on early educators have brought with them new professional development needs. In Nebraska, a survey conducted with licensed family and centerbased child care providers found that 46% of teachers wanted more training in COVID-19 health and safety practices.¹¹⁸ Teachers also reported the need for professional development to improve the guality of virtual interactions.¹¹⁹ Teachers in North Carolina preschool classrooms in public schools, Head Start, and private child care centers rated emotional and social development as the most difficult learning domain to teach remotely (42%). followed by approaches to play and learning (23%), health and physical development (15%), cognitive development (10%), and language development and communication (10%).¹²⁰ In California, schools, centers, family child care homes, and Head Start providers highlighted the need for professional development to address bilingual communication challenges and DLLs' learning needs. Specifically, they wanted more resources and training on how to engage DLLs during remote instruction, how

to appropriately adapt the curriculum, and how to address the lack of access to multisensory experiences that are frequently used with DLLs.¹²¹

Notably, in many contexts, professional development requirements were adapted to try to support teachers and programs.¹²² For example, 38 state-funded preschool programs offered content related to operating classrooms remotely, children's mental health, or addressing health and safety for in-person options. There is little information on how useful programs and teachers found these new supports. However, teachers in public preschool programs, child care centers, and family child care homes in Arkansas found the online trainings, coaching, and mental health consultations they received to be helpful.¹²³





Because I'm in a place where I live upstairs...as soon as it crosses the threshold of my door...it's there. We're going to get it.

- A child care provider in Arkansas

CONCERNS ABOUT HEALTH AND SAFETY WERE HIGH.

Data from 16 studies (1 national, 9 studies in 8 states, and 6 local) highlight that early educators feared for their health and safety,¹²⁴ and in particular worried about contracting COVID at their site and bringing it home to their families.¹²⁵ In Massachusetts,¹²⁶ Virginia,¹²⁷ Nebraska,¹²⁸ and New Orleans,¹²⁹ educators reported considerable concerns about the risks their work posed to their health and their family's health, as well as worry about potentially sick children and/or co-workers at their site. As a provider in a family child care home in Arkansas who contracted the virus put it, "Because I'm in a place where I live upstairs... as soon as it crosses the threshold of my door... it's there. We're going to get it."¹³⁰ Though data collected in Arkansas suggest some decrease in educators' concerns from fall 2020 to spring 2021, more than half of teachers in spring 2021 still reported being moderately to extremely concerned about exposing themselves, their families, or the children at their site to COVID.¹³¹ These concerns were exacerbated for educators in child care¹³² and family child care¹³³ because both prior to and during the pandemic, they were unlikely to have access to health insurance and/or paid sick leave through their employers.¹³⁴ Indeed, 57% of child care teachers surveyed in three parishes in Louisiana in the fall of 2020 reported they did not have enough money to pay their medical expenses.¹³⁵

MANY ECE EDUCATORS REPORTED FEELING OVERWHELMED AND STRESSED, AND SPIKES IN DEPRESSION WERE WIDELY DOCUMENTED.

Beyond describing specific concerns related to COVID, 12 studies across 7 states described early educators' mental health and/or depressive symptoms during the pandemic and showed that across all program types, early educators were experiencing considerable mental health struggles. Among early educators working across program types in Massachusetts, 60% indicated the pandemic was negatively impacting their mental health, with little difference for teachers in child care versus school-based programs.¹³⁶ Similarly, in Nebraska, over 70% of the family child care home and center-based providers who responded to a survey indicated they felt negative or anxious about the future. Most respondents also reported feelings of social isolation and lack of control "sometimes"

or "most of the time."¹³⁷ These findings were echoed in qualitative interviews conducted in Arkansas,¹³⁸ Colorado,¹³⁹ and California,¹⁴⁰ as well as a national qualitative study by the Chamber of Commerce.¹⁴¹ Importantly, studies with pre-COVID data show an *increase* of 50-100% in early educators' depression since COVID's arrival (see Figure 13).¹⁴²

Many early educators felt that the stress of the pandemic was negatively impacting their ability to care for and teach young children. For instance, survey responses from about a thousand family child care home and center-based providers in Nebraska indicated that over half worried the stress of the pandemic was negatively impacting the quality of care children were receiving.¹⁴³ Similarly, in surveys of ECE lead teachers in Louisiana and Virginia, between 30% and 38% reported that they were moderately or very concerned that stress from COVID-19 would impact their teaching.¹⁴⁴

Notably, in the Nebraska study, 1 in 5 providers reported that they would access counseling and mental health services for themselves or their staff if it were available.¹⁴⁵ In Louisiana, about a quarter of child care and school-based preschool teachers surveyed in the fall of 2020 indicated they had considered using mental health services since the school year began, though only half of these teachers ultimately did access mental health resources.¹⁴⁶ Access to mental health supports seemed to vary across program types. In one survey, respondents from Head Start were about twice as likely (58%) as those from any other program type to indicate their program provided mental health supports for adults.¹⁴⁷





FIGURE 13: Depression among early educators increased in Virginia during the pandemic



TEACHER TURNOVER AND ABSENCES SPIKED IN CHILD CARE.

Through the fall of 2020, instability in site operating status proved difficult for all early educators, but instability hit educators working in child care hardest. Site openings and closings, along with fluctuating enrollments and concern about contracting COVID, forced teachers to navigate reductions in hours. Mandatory guarantine policies, illness, and family caregiving responsibilities led to increased absences in programs that were operating in-person.¹⁴⁸ These changes exacerbated staffing challenges and led to layoffs particularly in child care, where workforce instability has long been high.¹⁴⁹ Whereas overall turnover among public school teachers appears to have either stayed the same or even declined compared to before the pandemic,¹⁵⁰ data from four studies show that child care teachers' job commitment decreased and turnover increased during the pandemic.¹⁵¹

Pandemic staffing challenges are likely to hinder recovery. For example, a fall 2020 survey in Louisiana found that 90% of child care leaders were having challenges with staffing, and 64% struggled to hire the teachers they needed. That number jumped to 84% for leaders who had issued layoffs. These leaders hypothesized that increased challenges of the job coupled with continued low wages were both a major driver of staffing challenges and likely to influence teaching quality. Indeed, nearly 80% of leaders were concerned that their staffing challenges would have a negative impact on children.¹⁵²



EMOTIONAL WELLBEING AND JOB COMMITMENT FOR EARLY EDUCATORS NOT REPRESENTED IN THE DATA ARE LIKELY MORE WORRISOME.

The majority of the studies we reviewed sampled teachers and caregivers from operating ECE programs. We are largely without data on early educators who left their jobs due to the pandemic. As described earlier, there were teacher layoffs¹⁵³ especially early in the pandemic, and some teachers voluntarily left their jobs due to health and safety concerns and to care for their own families.¹⁵⁴ Moreover, data suggest that depression rates were higher among laid off teachers than working teachers.¹⁵⁵ These conditions likely impact the sector's ability to recruit and retain teachers both now and in the future.¹⁵⁶

SUMMARY OF MAIN FINDINGS

OUR SUMMARY OF 53 STUDIES OF THE EFFECTS OF THE PANDEMIC ON EARLY CARE AND EDUCATION PROGRAMS SHOW:

- The public health emergency highlighted pre-existing inequalities across early childhood program types. Child care centers and family child care homes experienced serious financial challenges that made it difficult to operate. In contrast, public schools and Head Start programs experienced more stable funding and were not as affected.
- Early stabilization efforts left substantial unmet need, particularly in child care centers and in family child care homes. Pandemic recovery continues to be uneven, with tremendous need for new funding and professional supports.
- The pandemic increased the complexity and stress of early educators' jobs across all program types, in ways that negatively impacted teachers' mental health. Teachers reported high levels of stress and depressive symptoms, as well as concerns that these challenges would affect their ability to provide high-quality experiences for young children.
- More challenging working conditions, financial concerns, and mental health struggles may have contributed to programs' challenges recruiting and retaining teachers. Data from fall 2020 and spring 2021 suggest that teachers' commitment to both their jobs and the field of ECE has decreased, and programs are struggling to hire qualified teachers.



EVIDENCE-BACKED, EQUITY-CENTERED SOLUTIONS

The evidence we synthesized reveals a worrisome picture of the effects of the COVID-19 crisis on young children's learning and development and on early care and education programs and the workforce. However, with the right policy responses, children's learning can be accelerated and we can finally begin building a coherent, well-supported early care and education system in the U.S.

In service of this goal, our team of early childhood experts, in collaboration with policymakers in multiple states, identified **evidence-backed**, **equity-centered** solutions to the problems wrought by the crisis. We outline those solutions here, with citations to the research that supports them.



ACCELERATING CHILDREN'S LEARNING¹⁵⁷

ACT ON THE BEST SCIENCE OF TEACHING AND LEARNING FOR YOUNG CHILDREN.

New funding offers a historic opportunity to act on the best science of teaching and learning for young children. This opportunity includes implementing proven curriculum and effective coaching for early educators.¹⁵⁸ Nationally, most public preschool programs use less effective curriculum and the majority do not provide coaching for teachers.¹⁵⁹ Many districts use less than optimal approaches to teach reading in K-2 in particular.¹⁶⁰ Very practical changes to eliminating wasted time on activities common in early learning and early elementary classrooms like calendar activities and inefficient transitions would also allow more time on the highly effective play-based instructional practices needed to accelerate young children's learning.¹⁶¹ Critical for equity, evidence shows these changes stand to particularly benefit children most affected by the pandemicchildren from families with low incomes, DLLs, children of color, and children with disabilities.

MAKE THE MOST OF SUMMER.

Young children's learning slows over the summer months, particularly for young children from families with low incomes, children of color, and DLLs.¹⁶² New federal funding allows districts to expand their summer learning opportunities for the next several years. To maximize impact, this expansion should include young children and program design should draw from the best evidence on program length, small class size, provisions for ensuring good attendance and student engagement, cultural relevance, and promoting learning gains across multiple domains.¹⁶³

OFFER TUTORING AS EARLY AS KINDERGARTEN.

Tutoring has been a popular suggestion for accelerating children's learning in the wake of the pandemic.¹⁶⁴ High-impact tutoring appears to have several common characteristics: high dosage (three or more required sessions per week), a stated emphasis on tutor-student relationships, use of formative assessments, alignment with school curriculum, and routine tutor training and support.¹⁶⁵ Tutoring has been shown to be effective for children as young as kindergarten and shows particularly large effects for children with lower initial skill levels, suggesting targeted tutoring services may address disparate pandemic impacts on learning.¹⁶⁶

HIRE ASSISTANT TEACHERS.

Children will likely have an even wider range of skill levels than usual given disparate experiences during the pandemic. In addition to tutors, hiring more assistant teachers is a research-backed, equity-centered approach to accelerating children's learning, particularly for students of color and students from households with low incomes.¹⁶⁷ Before the pandemic, many



kindergarten classrooms had only part-time assistants or none at all. New federal funding can support additional assistant teachers in the classroom, increasing the amount of time students spend in small groups and as well as the time teachers spend differentiating of instruction to meet students where they are. Crucially, most schools already know how to incorporate teaching assistants into classrooms with young children.

SUPPORT THE WHOLE CHILD

PLACE EXTRA WEIGHT ON SOCIO-EMOTIONAL DEVELOPMENT AND CONSIDER TRAUMA-INFORMED APPROACHES.

Socio-emotional wellbeing is a critical aspect of all children's healthy development. Young children are resilient¹⁶⁸ but there have been disparate impacts of the pandemic on families, and teachers have expressed concerns about this area of development in particular. To support children's socio-emotional development and give children the tools they need for learning in other domains, early educators should be provided with resources such as additional mental health supports, additional school counselors, and training in traumainformed approaches.¹⁶⁹

PROHIBIT HARSH DISCIPLINE AS CHILDREN RETURN TO ECE SETTINGS.

Children have had an unusually wide array of experiences during the pandemic, and their behavior may also vary widely during reentry into group settings. To accelerate learning for children most affected by the pandemic, training and policy changes can help anticipate and address the overuse of harsh discipline for young children and reduce racial disparities in disciplinary practice, including expulsion, suspension, and exclusion.¹⁷⁰

PARTNER WITH FAMILIES

CONTINUE VIRTUAL OPTIONS TO CONNECT WITH FAMILIES.

A wider menu is now available for facilitating the home-school connections so critical for young children's development and learning—a silver lining of the pandemic. There is not yet evidence on the effectiveness of these new approaches, but in-person teacher-parent conferences before the pandemic were difficult for many working families, particularly those who lacked access to reliable transportation or had unpredictable work schedules.

CONSIDER FREE, TECHNOLOGY-BASED LEARNING SUPPORTS.

In addition, schools and providers can also help connect families to free, proven texting-based interventions and high-quality media.¹⁷¹ For example, the state of Illinois has partnered with researchers at the University of Chicago to offer texting supports for parents of preschoolers across the state and any family can sign up for the Ready4K texting program.¹⁷² These family supports can strengthen home-school connections and accelerate children's learning.

INCREASE SUPPORT TO THE WORKFORCE

ENSURE PUBLIC INVESTMENTS ARE SUFFICIENT TO PAY ALL ECE WORKERS A LIVING WAGE AND ESTABLISH PAY PARITY WITH K-12 FOR EDUCATORS WITH MATCHING QUALIFICATIONS.

Research demonstrates persistently low pay for early educators, especially those working in child care centers and family child care homes, many of whom are women of color.¹⁷³ New Premium Pay Fiscal Recovery Funds available under the American Rescue Plan can be used to increase wages and offer bonuses in the short term.¹⁷⁴ Additional funding proposed in the American Families Plan could boost educator pay to a living wage of \$15 per hour¹⁷⁵ and help ensure that all early educators—regardless of program type receive K-12 wages if they meet requirements.¹⁷⁶ Funds can flow directly through the child care subsidy system, Head Start, and public Pre-K. For private-pay providers, new mechanisms will need to be established to ensure pay equity across ECE and ensure the costs of sufficient compensation don't fall on families. These types of changes are essential for both addressing current staffing shortages and achieving longer-term professionalization goals.

OFFER ADDITIONAL HEALTHCARE SUBSIDIES FOR ECE WORKERS.

Pay is just one component of a fair compensation package. The COVID-19 pandemic has highlighted the importance of health and mental health coverage for early educators, many of whom systematically lack access to these supports even as they bear disproportionate health and safety risks.¹⁷⁷ Additional healthcare subsidies can ensure everyone in the ECE workforce has the coverage they need.

PRIORITIZE ECE EDUCATORS IF VACCINE BOOSTERS ARE NECESSARY.

In some states, K-12 teachers but not early educators received priority access to COVID-19 vaccines, even though early educators were far more likely nationally to be teaching in person.¹⁷⁸ If vaccine boosters are necessary, prioritize early educators alongside teachers of older children.

ACCELERATE THE CREATION OF A COHERENT ECE SYSTEM

EXPAND PUBLICLY FUNDED ECE OPTIONS.

Supply of high-quality ECE has long been a major problem across the country, particularly for infants and toddlers.¹⁷⁹ The pandemic magnified this problem, making it difficult for parents (particularly mothers) to return to work and for young children to recover from learning setbacks. Using new funding to allow all families who want it to access high-quality ECE care for their young children is an imperative in the recovery. Prioritizing the need for infant and toddler care, where access to affordable options are particularly lacking, is critical for efforts to ensure equity. Similarly, designing and locating new programs in ways that address persistent racial and socioeconomic segregation can help forge a more equitable future for ECE.¹⁸⁰

CONSIDER PUBLIC SUPPORTS TO STABILIZE CHILD CARE PROVIDERS IN THE SHORT AND LONG TERM.

As the country reopens, ECE enrollment has been picking up steam.¹⁸¹ But longstanding structural differences still put child care programs behind Head Start and public preschool in funding and stability. New federal funds can pay child care providers based on enrollment rather than attendance at least until early 2022, while the health emergency persists.¹⁸² In the longer term, expanding structural supports can reduce instability in the child care market. Evidencebacked, equity-centered supports include: shared business services alliances, expanded use of contracts, and modifications to subsidy reimbursement systems that better address the reality of child absences, changing family needs, and other everyday instabilities that currently exert outsized impacts on providers' finances. Paired with additional support for accessing public funding, these provider-friendly policies can help build a more resilient child care system.

ANTICIPATE AND STAVE OFF CUTS TO HEAD START AND PUBLIC SCHOOLS.

Although the COVID-19 pandemic hit child care especially hard, Head Start and public preschool could see future cuts because of enrollment declines or as federal relief expires. Funding public schools and Head Start with a floor set at their prepandemic enrollment for the next several years is essential for preventing large drops in resources and the destabilization of those settings.¹⁸³

INVEST IN DATA SYSTEMS AND ANALYTIC CAPACITY.

Building a more cohesive ECE system requires a clear understanding of current needs across program types and a way to track progress over time. Data on access, workforce stability, quality, and equity are all essential, and the pandemic gave rise to innovations in this type of systemwide data gathering.¹⁸⁴ Better data on ECE settings can only drive improved outcomes if there are analysts to synthesize data and put findings in context for policy and practice. American Rescue Plan funds are permitted to be used to hire research staff in the state and local agencies that oversee ECE.¹⁸⁵ Rapid-cycle data use can inform investments in programs and advance a system of continuous quality improvement necessary to build a highquality, coherent ECE system.

THE ROLE OF RESEARCH IN RECOVERY

RESEARCHERS CAN AID RECOVERY EFFORTS IN IDENTIFYING, IMPLEMENTING, AND MONITORING THE SUCCESS OF EVIDENCE-BACKED, EQUITY-CENTERED SOLUTIONS. BASED ON OUR SYNTHESIS FINDINGS AND COLLECTIVE EXTENSIVE COLLABORATION WITH RESEARCH AND POLICY PARTNERS, WE HAVE SEVERAL RECOMMENDATIONS FOR RESEARCHERS (AND BY EXTENSION, FOR THOSE WHO FUND AND DISSEMINATE RESEARCH):

- While there are over 300 studies of the impacts of the pandemic on young children and ECE programs, we have likely just scratched the surface of the effects of this fluid, complex crisis. Additional research is critical for tracking recovery for children, programs, and teachers, and to support policymakers' efforts to target resources to areas of need.
- 2. Many early studies focused on easily-measured, early-stage outcomes (e.g., closings, finances, academic outcomes). *Targeting important but difficult-to-study dimensions* (e.g., classroom quality, social and emotional development, learning outcomes for the youngest children, staffing and teacher training) as well as *key populations* (e.g., children from homeless families, DLLs, young children with disabilities, children experiencing bereavement due to the pandemic, Asian-American children amid the spike in Asian-American hate), is imperative.
- 3.*Research partnerships and enhanced research capacity within ECE agencies* are two ways to aid efforts to identify, implement, and monitor the success of recovery efforts.¹⁸⁶ These approaches to conducting research can provide access to better data and richer, more actionable information for policymakers—particularly given that the effects of the crisis are highly localized.
- 4. *Quick-turnaround studies are needed to inform local action.* Studies that happen on short timelines while maintaining rigor are the most helpful to decision makers. Communicating the limitations of studies clearly to decision makers is essential.¹⁸⁷

ENDNOTES

- Chaudry, A., Morrissey, T., Weiland, C., & Yoshikawa, H. (2021). Cradle to kindergarten: A new plan to combat inequality. New York, New York: Russell Sage Foundation; Shonkoff, J.P, & Phillips, D.A. (2000). From neurons to neighborhoods: The science of early child development. Washington, D.C: National Academy Press, 2000.
- We identified studies for our review beginning with the Urban Institute's "List of COVID-19 Child Care Surveys and Data Analyses" 2 in March 2021 (see: https://www.urban.org/policy-centers/centerlabor-human-services-and-population/projects/list-covid-19-child-care-surveys-and-data-analyses). To find other relevant research products that were not included in the Urban Institute list, we began with a general search using Child Care and Early Education Research Connections. Because the Urban Institute team had last updated the research list in December 2020, we searched for all material that was published after 2020. We included any analyses regarding young children's outcomes (ages 0-8) and the early childhood sector during COVID-19 for our first level of review. We reviewed presentations, briefs, and journal articles included on the Society for Research in Child Development website and included any relevant research in our list. Additionally, we reviewed all COVID-19 related papers that were presented in academic conferences such as APPAM 2020 fall conference and used the authors' names and presentation keywords to find published versions of such papers. We continued the search by referencemining relevant resources, including publications that were already included in our first level of review list. We also shared the running list with the authorship and policy partner teams and asked them to send additional work. Finally, we completed our search using Google Scholar and Google, again including all publicly available findings in our review. Our key search categories and relevant search terms included the words "COVID," "coronavirus," "pandemic" and "learning," "education," behavior," attendance, socio-emotional," "closures," "working conditions," financial stability, "ages 0 – 8," "early care and education," child care," and "Pre-K." When research results were published in several formats (i.e., briefs and blog entries using the same data and describing the same results), we selected the document presenting research with more detail to avoid duplicating entries. In total, we included 307 publications in our first level of review. These 307 studies were conducted across 48 states and the District of Columbia. All survey entries in the first level of review with response rates of 30% or higher were included in our second, more detailed level of review. We chose 30% based on the distribution of response rates across studies and as a benchmark for a good response rate; 30% is relatively low but the crisis is unprecedented and likely harmed response rates accordingly. All publications based on interviews, focus groups, virtual interviews, or web surveys with gualitative data were included in the second level of review. Upon review of the publications included in our first level screen, 76 publications passed our inclusion criteria and were included in our second level of review.
- 3 We categorized state studies as those that are either statistically representative of the state or the sampling strategy aimed for state coverage. Local studies include those conducted in cities, parishes, or combinations of localities (cities, districts, etc.) within a given state.
- 4 American Rescue Plan of 2021, H.R. 1319, 17th Cong. (2021). <u>https://www.congress.gov/bill/117th-congress/house-bill/1319/text</u>.
- 5 The White House. (2021, March 31). Fact Sheet: The American Jobs Plan. <u>https://www.whitehouse.gov/briefing-room/statements-</u> releases/2021/03/31/fact-sheet-the-american-jobs-plan/.
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