

COVID-19 EC RESEARCH PARTNERSHIP Measuring the Impact of COVID-19 on Colorado's Early Care and Learning Sector

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March 2021

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Introduction

PURPOSE OF STUDY

Colorado's early care and education (ECE) system was fragile prior to the COVID-19 pandemic. The industry lacked funding to support access to care as well as quality and sustainability of operations. Families also lacked access to affordable and adequate child care options. In March of 2020, with the pandemic already threatening to deepen these challenges, Early Milestones Colorado (Early Milestones) began to conceptualize a study to understand the impact of the crisis on the state's early care and learning sector. We coordinated with state and local partner organizations with similar goals to shape the direction of the study and received funding from the Buell Foundation, the Colorado Health Foundation, the Daniels Fund, Gary Community Investments, the Office of Early Childhood, and the Wend Collective. This report explores the results of the first wave of this study, completed between June and September of 2020, to understand the impact of COVID-19 within the state's early care and learning sector.

STATE OF CHILD CARE IN COLORADO

Status of the Industry

As of September 2020, there were 4,824 licensed child care providers in Colorado, including family child care home-based providers and school-age child care centers (Colorado Department of Human Services, 2020). The industry generates \$749 million in revenue annually and employs more than 22,500 workers in the state (Committee for Economic Development, 2019). Prior to the pandemic, child care programs ("providers"); including centers, family child care homes, and before/after care; confronted a difficult model, with slim profit margins and accelerating operating costs.

Workforce Considerations

Another challenge for providers is staff retention. A 2017 survey of Colorado's early childhood workforce found that center directors reported a 17% annual turnover rate in program leadership positions, a 16% turnover rate in lead teacher positions, and 22% and 40% turnover rates for assistant teachers and floaters respectively. High turnover adversely affects a program's ability to provide care, as well as the availability of access to high quality early learning opportunities for children (Schaack & Le, 2017). For comparison, the average annual turnover rate in the insurance industry in the United States was 15.5% in 2017 (Mercer, 2018). In addition, the early childhood care and education (ECE) industry's workforce is faced with low wages and benefits in comparison to other fields, despite the increasing importance of early care for our children. The median annual salary for a child care worker in Colorado is \$26,880, only slightly higher than minimum wage for full time work in the state (Economic Policy Institute, 2020).

Family Access to Care

While Colorado's child care providers and workforce grapple with this host of obstacles, families around the state are struggling to access care for their children. Families are often forced to make difficult choices based on availability and cost, with limited slots and affordability as significant concerns. The state's licensed child care capacity for infants and toddlers has declined in recent years while demand has increased, highlighting the urgent need for more providers and center- and home-based programs to meet the needs of families. Currently, there are an estimated 326,372 children under the age of five in Colorado, with about 45.7% of those children in nonparental care for at least 10 hours per week (Colorado Department of Local Affairs, 2021; Committee for Economic Development, 2019). In 2018, there were 137,430 center slots and 13,766 family child care slots available (Child Care Aware of America, 2020). As it stands, Colorado does not have the capacity to meet the demand for care.

High Cost of Care

Affordability is another barrier for families. Infant care in Colorado is the 8th most expensive out of all 50 states and the District of Columbia. The average annual cost of center-based care in Colorado is \$15,325 for an infant and \$12,390 for a four-year-old (Economic Policy Institute, 2020). The expected cost of child care accounts for nearly 30% of the median household income in the state, making child care one of the costliest budget items for Colorado families (Schulte & Durana, 2016).

Impact of the Pandemic

At the onset of the COVID-19 pandemic, early childhood stakeholders were immediately concerned about the potential impacts of the global health crisis on the ECE sector and the families it serves. In collaboration with partners including the Office of Early Childhood, the Governor's Office, early childhood councils, and other early childhood interest organizations across the state, Early Milestones launched a systematic exploration of the impact of the pandemic on providers, early care and education professionals, and families with young children. The following report presents data and experiences that shed light on the toll that COVID-19 has taken to date on Colorado's ECE communities.

SUMMARY OVERVIEW & MEASURES

In the summer of 2020, Early Milestones developed three coordinated surveys in conjunction with multiple partners in Colorado's ECE sector. Our goal was to estimate the impact of COVID-19 throughout the state. These three surveys focused on the quantitative and qualitative experiences of:

- Licensed child care programs serving children birth through age 12
- Early educators and child care professionals
- Families with children birth through age 12

The family survey was developed in partnership with the Butler Institute for Families at the University of Denver (Butler Institute). Information regarding survey administration and partnership is detailed below. Additionally, we worked closely with Mile High United Way and the Butler Institute to design a fourth survey of family, friend, and neighbor (FFN) providers that was administered in early fall of 2020. The primary focus of this report is the three main surveys listed above, with select additional information incorporated from the FFN survey results.¹

RESEARCH QUESTIONS

Provider

- What is the provider supply and what factors have driven supply changes?
- What supports or resources are providers accessing and to what end?
- What is provider participation in available programs and what factors are driving participation levels?
- What funding resources are providers accessing, and to what end?
- What adaptations to processes/procedures/space are providers making and what are the impacts of those adaptations on business viability?
- How are programs accessing information about the crisis and available supports/ resources?
- What do programs need moving forward to effectively reopen and stabilize?

Workforce

- How is the crisis impacting workforce supply?
- What supports or resources are early childhood professionals accessing and to what end?
- What opportunities and barriers have early childhood professionals faced in getting the support they need to effectively perform during the crisis?
- What care and teaching adaptations are early childhood professionals making and what are the impacts of those adaptations?
- What have been the financial impacts of the crisis on early childhood professionals?
- What do early childhood professionals need moving forward to continue to work in the early childhood sector?

¹ The Butler Institute and Mile High United Way may conduct separate analyses

Family

- How is the crisis impacting demand for early care and education?
- What alternative or temporary child care arrangements are families making while the crisis evolves?
- What family support resources are available to families during the pandemic?
- How are families accessing information about the crisis and available supports/resources?
- What have been the financial impacts of the crisis on families with young children?
- How has the crisis impacted the health and well-being of families with young children?

PROVIDER SURVEY

Survey Administration

On June 16, 2020, Early Milestones emailed a survey in Qualtrics to 4,554 licensed providers in Colorado, defined as owners, operators, directors, and site administrators of child care programs. The survey, designed to measure open/closed status, changes in enrollment, and acute concerns related to the first wave of the pandemic, remained open for six weeks before closing on July 20, 2020. Through partnership with early childhood councils, we sent weekly reminder emails to local providers to encourage participation in the survey. Providers could opt out of the survey and/or request to be taken off our distribution list, and a small percentage selected that option. Providers who completed the survey were entered into a random drawing to win one of 15 \$100 gift cards.

Sample Characteristics

In total, we received 1,661 responses to the provider survey, of which 1,207 met criteria for inclusion (e.g., survey completion and license verification).



POPULATION VS. SURVEY SAMPLE

The majority of respondents were located along the Front Range, and we obtained responses from each region of the state. However, only counties with five or more respondents were included in group analyses. This map represents the concentration of respondents by geographic location. **See Appendix A for regional definitions.**

Methodology

RESPONDENTS BY COUNTY



WORKFORCE SURVEY

Survey Administration

The second part of our survey series focused on Colorado's early care and education workforce, measuring work status (e.g., furloughs/layoffs), financial wellbeing, and needed supports as the pandemic continued during the summer. We sent email invitations via Qualtrics on June 29, 2020, to 33,048 individuals in the Colorado Shines Brighter Professional Development Information System (PDIS). We also worked with local early childhood councils to recruit non-PDIS educators through anonymous links with select filters and sent weekly reminders to encourage participation. The survey was closed to new responses on August 3, 2020, after five weeks of data collection. Participants could opt out of the survey and/or request to be taken off our distribution list, similar to the provider survey. Educators who completed the workforce survey were entered into a random drawing for 10 \$100 gift card incentives, and were eligible to receive one clock hour of professional development in the PDIS system, if registered.

Sample Characteristics

We received 6,036 responses, with 5,942 meeting initial criteria for inclusion (e.g. non-duplicate and response completion). A final subset of 5,079 met additional criteria for group analyses (e.g., having worked in the field in February of 2020). Some respondents did not answer every question in the survey, and thus were excluded from certain analyses that required available case processing. The workforce survey was offered in English and Spanish, and approximately 93 surveys were completed in Spanish.

EARLYMILESTONES.ORG

RESPONDENTS BY RACE/ETHNICITY



RESPONDENTS BY POSITION



FAMILY SURVEY

Survey Administration

In collaboration with the Butler Institute at the University of Denver, we surveyed Colorado families via Qualtrics from July 1 through September 8 of 2020. We reached families through participation in public programs (e.g., Colorado Child Care Assistance Program), outreach through early childhood councils, partner nonprofit organizations, Bright by Text, and paid social media posts. Survey questions measured information on families' current status of child care, financial outcomes, and priorities as related to COVID-19. This offered insight into the foremost concerns and needs of families with young children. Families were eligible to receive 20 \$100 gift cards from Early Milestones, with additional incentives provided by the Butler Institute and the Spring Institute for Intercultural Learning (Spring Institute).

Translations

The family survey involved multiple partnerships that focused on diverse communities. The survey was initially translated into seven languages (Arabic, Burmese, English, French, Karen, Nepali, and Spanish) in conjunction with Aurora Public Schools. We received 11,378 survey responses in English, 175 in Spanish, 12 in Arabic, 2 in Burmese, 2 in Nepali, and 1 in French. A sub-survey was created by the Butler Institute and the Spring Institute, which focused on local communities of Dari, Somali, and Swahili families. We received 22 responses in Somali, 11 in Dari, and 2 in Swahili. Professional interpreters collected information from families who needed support to complete these surveys. All responses were aggregated into the main survey database and were professionally translated for quantitative and qualitative review.

Sample Characteristics

We received responses from 11,788 families. Of these, 11,607 met criteria for inclusion and group analyses (e.g., Colorado residency and having children between the ages of birth and age 12). See Appendix A for regional definitions.



FAMILY SURVEY RESPONDENTS BY REGION





FREQUENCY OF THE AGE OF RESPONDENTS' CHILDREN



FREQUENCY OF THE AGE OF RESPONDENTS' CHILDREN BY RANGE



QUANTITATIVE STATISTICAL METHODS

This section provides highlights of primary sample selection and data cleaning procedures. As noted, surveys were disseminated via Qualtrics, collecting both quantitative and openended qualitative results. Quantitative analyses were conducted through Excel and IBM SPSS Statistics for Windows programs. Initial inclusion criteria were described above. For the provider survey, additional filters were used to calculate open/closed status and enrollment levels, and are detailed below. Within the workforce survey, respondents were filtered within the furlough/layoff status and intent to remain in the field analyses. For the family survey, ages of children served was the primary metric for group analyses.

Statistical Significance Testing

Many of our analyses consisted of descriptives and crosstabulations. For select significance testing, after meeting assumptions, a mix of multinomial and binomial logistic regressions were used for categorical dependent variables. For continuous dependent variables, analysis of variance (ANOVA) and independent samples t-tests were incorporated. The majority of inferential statistics were designed with a p value of .05.

Provider Open/Closed Rates

For the Provider survey, we analyzed open/closed status in aggregate, and then by multiple demographic factors. Operating status was self-reported by providers as one of four options: open, open with reduced enrollment, closed due to the pandemic, and closed for the summer. Not all providers reported their open/closed status, with a small number of respondents (approximately 6%) excluded from this analysis. We then measured open/ closure rates by factors of location, provider type, and public funding status. Locations with less than five respondents were suppressed from these analyses. Full demographics of the sample are further explored in the Provider section.

Provider Enrollment

We used a sequential method to gauge the pandemic's effect on enrollment levels statewide. We excluded programs that were closed over the summer, and focused on providers that were serving at least one child in each age range prior to the pandemic. Providers may serve multiple age groups. The resulting sample contained 400 providers who served infants between birth to 11 months, 632 who served toddlers between 12 and 35 months, 674 who served 3-year-olds, 674 who served 4-year-olds, and 643 who served children from ages 5 to 12 years old. These providers were asked to report their enrollment between two points in time: prior to March 2020 and during the summer of 2020. Total enrollment change was calculated using raw numbers from pre/post responses. These totals were averaged to create a mean percentage change for statewide programs. We then added factors of provider type, ages served, and location to the analysis. In addition to providing raw data on pre/post enrollment, this approach allowed for a nuanced assessment of group differences.

Infant	Toddler	3-Year-Old	4-Year-Old	School-Age
Providers	Providers	Providers	Providers	Providers
400	632	674	643	516

Workforce Furlough/Layoff and Attrition

We asked respondents about employment status, household income, hours, wages, and benefits to delve further into the pandemic's economic impact. We analyzed intent to stay in early childhood positions in the short term (two years), and intent to stay in the early childhood field in the long term (five years), as a way to gauge rates of attrition. We then added factors of educator role, credentialing, and racial/location demographics as independent variables within our analyses.

Family Access to Care

We asked parents and guardians of children between birth and age 12 about their current care arrangements, as well as about their financial well-being and current work status. This allowed us to estimate how many families either did or did not have the care that they needed for their young children. We also asked about their care providers, about their concerns related to accessing care, and about parental preference in care settings. These dependent variables were measured against various demographics, though we selected ages of children (e.g., birth to age five and school age) in the household as a primary metric for reporting.

QUALITATIVE STATISTICAL METHODS

All three surveys allowed for open-ended text responses from participants. Answers to the following questions were coded into themes for analyses:

- Providers: If you would like to share additional information about your experiences as a licensed provider since the start of the pandemic (March 2020), please use the space below.
- Educators: If you would like to share more about your experiences as an early childhood educator/caregiver since the start of the pandemic (March 2020), please use this form.
- Families: Please tell us how your child care arrangements have changed due to the pandemic.

In total, we collected over 300 narrative responses from providers, over 3,000 from educators, and over 6,000 from families. Using ATLAS.ti and Excel, we coded a selection of responses from each survey with four team members. Each theme was confirmed between team members until reaching a point of saturation through group consensus (e.g., no new themes emerging). After reduction from initial coding, three codebooks were made for each survey with primary themes. (See Appendix B for a complete list of coded themes.) For this study, qualitative insights were applied to results from the primary quantitative data for a richer lens, and are included within each section of this report.

PROVIDER SURVEY

- Nearly a tenth (9.4%) of all providers closed due to the pandemic
 - Some reopened, but many were not certain about the future of their program
- Total enrollment dropped statewide by 53.2%
- Enrollment dropped on average by:
 - 38.9% for providers who served children under five
 - 29.1% for providers who served school-age children
- Some regions of the state were hit harder than others
- Public funding helped programs sustain unexpected downturns
 - Those who did not receive public funds were 1.6 times more likely to close
- Programs need grants or forgivable loans to re-open or stay open
- Operational changes had a negative impact on business viability

WORKFORCE SURVEY

- Nearly a quarter (23.3%) of the workforce was furloughed or laid off
 - Furloughs/lay-offs varied by region and credential level
- 9.8% of the workforce was not currently working and did not anticipate a return
- Half of the workforce (49.7%) saw their hours decrease and 46.2% saw their household income decline
- 15.6% had difficulty paying bills
 - Rates are much higher depending on race/ethnicity
- Early educators need significantly more technology and instructional support

FAMILY SURVEY

- 64.3% of families had to alter child care arrangements due to the pandemic
 - Rates were highest for school age children
- 33.0% of families did not currently have needed child care at the time they were surveyed
- 56.0% of families had not finalized child care plans for the fall at the time they were surveyed
 - Security of plans vary by the age of child and race/ethnicity
- Most parents were caring for children themselves or had children in non-preferred arrangements
- A majority of families want small groups under 10 children and daily attendance
- 49.2% of parents saw their incomes decrease
 - Rates differ by race/ethnicity

Note: This is not a comprehensive list. More detailed information about these and other data are included in the following analyses.

Even before the pandemic, Colorado's ECE providers struggled with slim profit margins, unstable enrollment, and high staff turnover. Our data show that the COVID-19 pandemic has made these problems worse. Temporary and permanent closures, significant enrollment declines, and drastic changes in operational and instructional practices have all threatened the industry's short- and long-term viability.

OPEN/CLOSED STATUS

Out of 1,207 providers who responded to our survey in June and July 2020, 40.9% were fully open, 33.0% were open but with lower enrollment, 16.7% were closed for the summer, and another 9.4% were closed due to the pandemic. However, there were differences between provider types, ages served, funding received, location, quality ratings, and participation in the Emergency Child Care Collaborative (a public-private funding consortium that provided child care assistance to essential workers early in the pandemic).

	Open	Open with Reduced Enrollment	Closed Due to Pandemic	Closed for Summer
Count	465	376	107	190
%	40.9%	33.0%	9.4%	16.7%

Provider Type²

Of those closed due to COVID-19, 55.1% were childcare centers, 37.4% were family childcare homes, and 6.5% were preschool programs. Overall, 9.7% of all childcare centers in our sample closed as a result of the pandemic, followed closely by 9.2% of all family child care homes, and 8.2% of all preschool locations.



CLOSED PROVIDERS BY TYPE

² License-exempt providers are not illustrated in these graphs due to sample size.

% OF ALL PROVIDERS CLOSED BY TYPE



Ages Served

Providers who were licensed to serve school-aged children (e.g., ages 5 to 12) experienced the highest percentage of pandemic-related closures. In contrast, providers licensed to serve infants were least likely to have closed due to the pandemic.



PROVIDERS CLOSED BY AGES SERVED

Funding Sources

Access to public funding was an important factor in open/closed status. We explored participation in the Denver Preschool Program (DPP), Head Start, the Summit Pre-K Program (SPK), CCCAP, and the Colorado Preschool Program (CPP). Providers who did not participate in at least one of these programs had a higher risk of closure. Those without public funding were 1.6 times more likely to report closure as compared to their publicly funded peers [Exp(B) = 1.63, p = .03] (please refer to Appendix C for statistical tables). These providers were also less likely to operate with reduced enrollment [Exp(B) = .71, p = .01]. This suggests that a lack of public funding increased risk of closure, while simultaneously decreasing ability to stay viable under reduced enrollment conditions.

OPEN/CLOSED STATUS BY FUNDING SOURCE



Location

Open/closed status differed by geographic designation. In an analysis of regional differences, the Metro area had the highest overall percentage of closed programs in Colorado. In the Metro region, 11% of providers were closed due to COVID-19. Other regions of the state were also impacted, with closures in the Northwest, Southwest, and Southeast approaching rates within the Metro region. Programs in the Northeast represented the lowest percentage of COVID-related closings for all providers. **See Appendix A for regional definitions.**



Quality Ratings

We compared open/closed status based on providers' quality ratings. Overall, license-exempt locations reported a higher rate of closures and Level 3 providers reported the lowest rate. Rates of closure due to the pandemic appeared to increase for levels 4 and 5; however, further comparative analyses were not initiated in consideration of sample size differences between categories.

CLOSED BY QUALITY RATING



Emergency Child Care Collaborative

Soon after the governor issued stay-at-home orders in March of 2020, a group of philanthropic and state partners organized to identify child care programs willing to serve essential workers, connect those workers with available caregivers, and fund programs to provide the care free of charge. The program lasted from March 20 through May 24, 2020. Approximately one in four providers within our sample provided care as part of the Emergency Child Care Collaborative (ECCC) during this time.

Results show that the ECCC program helped protect participating providers from closure. Overall, providers who participated in the ECCC had a 23.3 times greater chance of remaining fully operational as opposed to providers who did not participate [p < .001], and a 10.4 times greater likelihood of operating in some capacity (e.g., with reduced enrollment) during the early days of the pandemic [p < .001]. **See Appendix C for statistical analyses.**



FACTORS IMPACTING OPEN/CLOSED STATUS

Roughly half of providers pointed to new health and safety guidelines (48.0%) as the most influential factor in their reopening plans. Enrollment numbers and funding concerns were also key factors for more than 40% of respondents. Approximately one in three providers reported that current rates of COVID-19 infections (38.6%) and the care and learning needs of children (29.0%) were also significant in their decisions.

³ Unrated programs include pending licensure applicants and license-exempt providers.

NEED FOR SUPPORT & SUPPLIES

Many providers who remained open during the pandemic reported difficulty getting the supplies needed to keep staff and children safe, including cleaning supplies and personal protective equipment (PPE). Some vendors and retailers were sold out of key items, such as gloves and sanitizing wipes, and others placed strict purchasing limits on items in high demand. These shortages caused providers to go to great lengths to meet sanitation requirements when confronted with a lack of supplies.

Home-based family child care providers were particularly concerned about the extra cost and time associated with obtaining supplies. These providers reported challenges with frequently changing precautions and feelings of isolation during the pandemic. Regardless of their program type, providers emphasized a commitment to families and the children in their care, and worked hard to maintain sanitary and supportive environments. However, some reported that they needed greater support to guarantee high-quality care.

"The lack of supplies and hoarding of essentials in the beginning of the pandemic made everything horrifically hard... Help from anyone would have been nice because ... we had to scramble, borrow, and do whatever necessary to meet the minimum safe sanitation requirements."



FACTORS INFLUENCING REOPENING, REGARDLESS OF OPEN/CLOSED STATUS



Reopening of Closed Programs

As noted, 9.4% of providers statewide closed due to early stay-at-home orders. Within this group, a little more than half planned to reopen within the next three months, while a quarter had already reopened fully or with reduced enrollment. The remaining quarter of providers reported that they were uncertain of reopening in the future, with a small subset of this group reporting permanent closure.



The vast majority of programs that closed due to shut-down orders requested grants and forgivable loans to reopen, followed by improved access to cleaning supplies and personal protective equipment (PPE). Providers also reported that removing limitations on group sizes would help them to reopen (the state lifted group size limitations just a few days before the survey launched in June).

SUPPORTS TO REOPEN CLOSED PROGRAMS



Contingency Plans

Three of four providers reported that they had a strategy in place for future state-ordered shutdowns, though one in four indicated that they had no specific response plan. For those with a detailed plan, 34.1% of programs hoped to remain open for all families, 27.7% expected to close temporarily, and 24.9% expected to stay open with limited enrollment. Providers indicated that these plans were fluid and subject to the guidelines that might affect a future state or local shutdown.



PLAN IN EVENT OF ANOTHER STAY-AT-HOME ORDER (N=671)

HEALTH & MENTAL HEALTH CONCERNS

Providers shared concerns about their own health and the health of their staff. Some are high-risk or have high-risk family members at home, leading them not to reopen due to fear of exposure. Others highlighted a need to put extra protections in place to allow high-risk staff to work safely. Providers feared the consequences of the virus spreading within their program and tried to protect staff with what felt like inadequate external support. This created even more anxiety in an already stressful situation.

"We as a staff are very nervous to see the COVID numbers going up, and we are concerned about exposure."



ENROLLMENT

Overall Enrollment Declines

The pandemic caused significant disruption for providers who were forced to close as well as for those who struggled to maintain enrollment. Many programs reported steep declines in enrollment during this time.

- Total enrollment of children from birth to age 12 within our sample decreased by 53.2%. This translates into a net loss of more than 26,700 children for responding providers compared to pre-pandemic enrollment.
- Providers of children birth to age four reported a total enrollment decline of 14,417, down from 29,347. This meant that pre/post enrollment levels had declined by 49.1%.
- For school age providers, total enrollment decreased by 58.9% during the pandemic.



ENROLLMENT CHANGES BY AGE

Variations in Enrollment Declines

Providers of different types and locations did not experience the same levels of enrollment declines. Similarly, a decline in enrollment of two or three children for a small program had a much different overall impact than the same decline in enrollment for a large program. To put those losses in perspective, we report average declines by age and geography to highlight the variations across provider types.

Average Declines by Age

For all ages birth to 12, programs reported an average enrollment decrease of 37.0% overall, although some individual programs had much higher enrollment drops and others much lower.

- Providers who served infants experienced the deepest enrollment loss, at an average of 41.8%, followed closely by providers serving 3- and 4-year-olds.
- Aggregating by age, providers who served children birth to age 4 reported an average loss of 38.9%, and school age providers reported an average decline of 29.1%.
- The impact of these changes in enrollment was dramatic: an average of 4 in 10 children under 5 who were formerly in care were no longer enrolled in licensed programs by the summer of 2020, along with about 3 in 10 school age children.

AVERAGE ENROLLMENT CHANGE BY AGE



Average Declines by Location

•

Enrollment impacts also varied by location within Colorado's eight regions. See Appendix A for regional definitions.

- Providers located in the Southwest had the steepest average enrollment decline for children age five or younger (46.7%).
- Providers in the Metro region reported the greatest average enrollment decrease in the school-aged population, at 36.1%.
- In contrast, the West Central region reported the lowest average percentage decline for children under five (29.8%), while the North Central region represented the lowest average percentage decline for school-aged children (14.3%).



AVERAGE REDUCTION BY AGE & REGION

The Southeast region is not reported due to sample size considerations.

Average Declines by Provider Type

Providers in the sample self-identified as centers, preschool programs, or family child care homes. Average enrollment declines varied by provider type and the age of children in care.

• Centers experienced their steepest declines in 3- and 4-year-old enrollment, followed by toddler and infant enrollment. Enrollment of school-aged children in center-based care declined by an average of 39.7%.

DIFFICULTY WITH NEW GUIDELINES & PROCESSES

Providers reported that implementing new COVID-19 guidelines (social distancing, sanitizing, wearing masks, etc.) has been extremely challenging. Ambiguity surrounding the guidelines also created difficulty for providers trying to maintain compliance and protect their children and staff. Providers also struggled to understand where to access up-to-date and accurate information. Many expressed frustration and fear while managing these challenges, as well as educating parents on the importance of rigorously following health and safety protocols. Others emphasized how the amount of time spent enforcing new rules and regulations was hindering their ability to educate children in their care.

Some providers shared that it was unrealistic for them to contact the health department on a case-by-case basis when they suspected potential exposure within their program. They would have preferred more strict and straightforward guidance about when to require children to stay home, quarantine a staff member, or close the program.

"The guidelines regarding illness, what to do, how to make decisions about closure, quarantine, etc. are far too nebulous... We need stricter guidelines to help support us in our decisions to require children to stay home, quarantine a staff member, close the school, etc.""



- Preschools showed average enrollment declines of 63.5% for 3-year-olds, 68.8% for 4-yearolds, 58.9% for toddlers, and 10.0% for school-aged children. Because this survey was conducted during the summer, response rates were low for this group; additionally, schoolyear schedules may account for the higher average declines for these providers as compared to centers or family child care homes.
- Family child care homes generally had lower average enrollment declines than their center and preschool counterparts, though significant variation existed between the youngest and oldest age groupings. Specifically, family child care homes experienced an average enrollment decline of 41.8% for infants, but only a 14.5% decline for school-age children.



AVERAGE ENROLLMENT DECLINE BY AGES SERVED & PROVIDER TYPE

Average Declines by Funding Source

Participation in the ECCC program enabled many providers to minimize enrollment losses.

- As compared to providers who did not participate, those who did offer care through the ECCC program reported statistically significant lower average enrollment declines for children in the toddler [p =.003], 3-year [p < .001], 4-year [p < .001], and school age groups [p < .001]. See Appendix C for statistical analyses.
- ECCC providers also reported a lower average decline for infant enrollment, yet this difference was not found statistically significant. CCCAP participation did not significantly impact enrollment losses.



Enrollment Increases

Though most providers experienced enrollment declines, there were areas of growth for a small number of programs. Approximately 13.4% of all providers reported an increase across all age groups. Out of 162 programs who reported an increase in enrollment, family child care homes made up 59.3%, followed by centers at 38.9%.



ENROLLMENT INCREASES BY PROVIDER TYPE

OPERATIONAL CHANGES

Providers who remained open faced operational changes and increased costs related to the pandemic. Most reported increases in sanitation and hygiene activities, including cleaning toys and surfaces, and handwashing. A majority of providers also implemented health screenings at check-in, along with staff use of masks and other PPE. Less than 20% of providers reported changing the location or timing of meals for children or staggering days of attendance as part of their response to COVID-19.



Impact of Operational Changes

Operational changes impacted providers' ability to function as they had before the pandemic. Nearly three out of every four providers reported that business viability (e.g., the cost of providing care and maintaining financially stability) was the most negatively impacted area of their operations. Negative impacts on child attendance and enrollment were concerns for more than two-thirds of respondents; and roughly half of providers indicated challenges with staff morale and children's social development/peer interactions. This suggests that providers are increasingly bearing the financial burden of adapting and incorporating new COVID-19 protocols, while experiencing the emotional toll of impacts to their staff and the children they serve.



Cleaning Supplies & PPE

Many providers had inadequate resources to meet the sanitation demands of the pandemic response. Nearly half (44.2%) did not have enough access to cleaning supplies, while 39.6% needed more PPE. A small number reported needing additional cleaning staff (16.7%).

SUPPORTING PROVIDERS IN UNCERTAIN TIMES

A common theme among survey responses was the importance of funding during the first wave of the pandemic. Many providers who experienced income loss and enrollment decline reported that financial support is what kept them afloat. Providers received funds through Paycheck Protection Program (PPP) loans, paid absences from the Colorado Child Care Assistance Program (CCCAP), grants, and other forms of support.

Other struggled to obtain financial assistance, causing many to question their own viability. These providers shared that they could not afford to cover operational costs while experiencing steep declines in enrollment and tuition. In some cases, a lack of funding forced providers to furlough or lay off staff. Many providers reported operating on thin margins pre-pandemic and expressed that, without support, a prolonged crisis may force them to close permanently.

Regardless of whether they received any funding, providers feel a widespread and urgent need for support, particularly for small businesses. Funding has been and will continue to be crucial for the industry and the financial well-being of provider staff.

"It has been terribly hard for us financially not operating and then losing so much enrollment... I anticipate grant funding to reduce over the next year, too, so we are extremely concerned not only for our current state of survival, but down the road too. I think this is going to have a much longer effect on us than most think."



Meeting Social Distancing Requirements

A third (32.1%) of all providers reported that they reduced enrollment to meet social distancing requirements; however, a similar number of respondents indicated that they were not making adaptations to space at this time or were instead repurposing existing space to meet this need. Only 16.2% reported needing additional space to ensure social distancing.

Adaptations to Space	Count	%
Reducing enrollment	387	32.1%
Repurposing space in existing facility	349	28.9%
Aquiring new space in another facility	34	2.8%
Not making any adaptations at this time	378	31.3%
Other	79	6.5%

Support System

Providers turned to trusted partners in the early childhood sector to navigate rapidly changing circumstances, guidelines, and requirements. Nearly half of providers (45.6%) worked with their local early childhood council and their licensing specialist (41.8%) for support and technical assistance during the pandemic. Almost one in five providers (16.2%) turned to Child Care Resource and Referral (CCR&R) agencies, while 11.8% accessed community mental health agencies and 6.0% received support from Family Resource Centers. Providers also worked with their health consultants (30.5%), coaches (16.8%), and early childhood mental health consultants (14.3%) to adapt to the impacts of the health crisis on operations.



RESOURCE AGENCY USE

Grant & Loan Programs

As costs rose during the pandemic, many providers also lost revenue. Some were able to access public funding through the Paycheck Protection Program (PPP), with approximately a quarter of providers reporting receipt of PPP funds by the summer of 2020. A much smaller number, received Economic Injury Disaster Loans (EIDL). Very few providers accessed other loan and grant programs, such as Small Business Administration Debt Relief, small business loans, or loan and tax deferrals.



% RECEIVING FUNDING BY SOURCE TYPE

Over a third of providers reported a need for loan forgiveness (38.2%) in addition to help identifying available funding sources (44.0%). Roughly one-third of providers also asked for flexible usage of funds (35.6%) or broadened eligibility criteria (28.2%).

EMERGENCY CHILD CARE COLLABORATIVE

The ECCC was a public-private partnership to connect essential workers with available child care during state stay-at-home orders. It operated from March 20 through May 24 of 2020 and covered the cost of child care for eligible essential workers. More than one in four providers (28.4%) reported participating in the initiative. A majority of these indicated a strongly positive view of the program, with a majority expressing approval of the ECCC's communication, provider application, reimbursement processes, and established tuition rates. In contrast, providers expressed a neutral view of the matching process.



Overall, the ratings of each program element were notably positive. If the program were needed again, approximately one-third suggested that bonus pay for staff (36.1%), access to additional supplies (34.1%), support accessing PPE (32.1%), and/or allowance of larger group sizes (31.0%) would promote participation.

FAMILY, FRIEND, AND NEIGHBOR CARE

Overview of Survey

In partnership with Early Milestones and the Butler Institute, Mile High United Way administered a survey designed for informal child care providers in the fall of 2020. This survey was in addition to the three primary surveys discussed in this report, and was distributed to a smaller and more specific subset of Colorado's child care providers. The criteria for eligibility included Colorado residence, a lack of an active child care license, and having provided consistent care in their home or the child's home within the last year for children that were not the respondent's own. Our primary interests included characteristics of FFN care and demographics of providers, experiences providing care within the context of the COVID-19 pandemic, and the supports necessary to continue or resume providing care.

Demographics

Mile High United Way received 283 survey responses from informal care providers across the state, 94.2% of whom were women and 66.2% of whom reside in the Metro Denver area. Over half (50.8%) of respondents identified as Hispanic, and three out of four (74.3%) were between the ages of 25 and 54. The following figures show a more nuanced racial and age breakdown of survey respondents. Nearly three-fourths of respondents reported an annual household income below \$45,000.

FFN RESPONDENTS BY AGE



Provider Household Income	Count	%
Less than \$25,000 per year	75	39.3%
\$25,000 to \$45,000	66	34.6%
\$45,001 to \$60,000	28	14.7%
\$60,001 to \$100,000	19	9.9%
More than \$100,000 per year	3	1.6%





Analysis: Provider Survey

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Provider Relationships & Experience

Most commonly, respondents' relationships to the children for whom they provided care were family members (43.5%), friends or neighbors (30.0%), and babysitters/nannies (19.1%). Almost half (54.5%) of respondents reported caring for school-age children between the ages of 5 and 12, followed by toddlers (44.2%), 3-year-olds (29.9%), 4-year-olds (29.0%), and infants (23.8%). Nearly one-fifth (19.1%) of respondents reported caring for a child with special needs. When asked about the length of time spent working as an FFN provider, one-third (32.9%) of respondents reported providing care for less than one year. Overwhelmingly, respondents identified two factors as "very important" reasons for why they provide care, including to help a relative or a friend (72.3%) and enjoying caring for and educating children (68.0%).



Length of Time Providing Care	Count	%
More than 12 months, but less than 5 years	101	43.7%
Less than 1 year	76	32.9%
5 to 9 years	27	11.7%
10 years or more	27	11.7%

Care Status

The pandemic affected FFN providers to varying degrees, yet prompted significant decreases in the number of children served daily. Overall, 21.7% of providers stopped providing care during the pandemic. Meanwhile, 61.7% indicated that they continued providing care and 16.6% began providing FFN care during this time. Hispanic providers were more likely than their white peers to stop providing care (39.1% vs. 6.3%, respectively). Compared to the pre-COVID number of children that respondents cared for, 39.7% fewer children were served in an average day since March 2020. Hispanic providers reported the steepest average decline in children served at 52.7%, followed by Black providers at 41.5% and white providers at 27.6%.

Operational Challenges

Most FFN providers increased cleaning practices, including increasing hand washing, and cleaning spaces and toys more frequently. Adaptations to COVID-19 (e.g., purchasing cleaning supplies, PPE, and health monitoring equipment) have simultaneously caused 36.1% of FFN providers to incur more costs, with an average monthly increase in costs of \$280.



CHANGES IN RESPONSE TO COVID-19

Caregiving Concerns

While 33.7% of FFN respondents reported no concerns providing care, 43.7% were concerned about the health and safety of the children they cared for, and 37.2% were concerned about their own and/or their family's health and safety. Nearly two-thirds of respondents indicated that they were comfortable providing child care, while the rest expressed discomfort doing so to some degree.

Financial Well-Being

The majority of respondents (58.1%) reported decreased household income as compared to prepandemic. Hispanic providers reported the highest decrease in household income (72.8%), compared to approximately one third (32.8%) of white respondents. Notably, providing FFN care was not the primary source of income for survey respondents. Slightly over one-third (35.3%) of respondents reported receiving no income for providing care, while 23.4% reported earning less than \$100 per week. In addition to working as a child care provider, 40.3% of FFN respondents indicated that they work a second job.



Colorado Child Care Assistance Program

Nearly half of respondents (44.0%) indicated awareness of CCCAP, but only 9.6% reported receiving payments from the program. Between 84.0% and 92.2% of those who identified as white, non-Hispanic or another race had health insurance, while only 39.1% of Hispanic providers reported having medical coverage.

Supports Needed

Another question focused on supports FFN providers were most in need of during the crisis. Less than half (46.1%) of providers reported access to necessary cleaning supplies, and nearly one-third (32.3%) of respondents reported access to PPE such as masks and gloves. This suggests a need for additional supplies necessary to keep children and also providers healthy and safe. Providers also reported less access to materials like toys and books to support play and learning, information about how to promote early literacy, and access to community resources like playgrounds and libraries. From a logistics perspective, FFN providers were least likely to indicate having support for transportation needs (13.2%), rent assistance (12.5%), and other considerations (4.6%).



SUPPORTS AVAILABLE TO FFN PROVIDERS WHEN NEEDED

These results suggest that the challenges FFN providers have faced over the course of the pandemic are not dissimilar to those that licensed care providers and members of the workforce have experienced.
Recruiting and retaining ECE professionals has long been a challenge for the field. Expectations of early educators are high and wages are much too low. The added risks from a highly transmissible virus have only made this situation more severe. Results from this study show that many professionals experienced job loss, reductions in hours, decreases in household income, and inadequate support for remote and socially distanced learning. Professionals of color have been affected disproportionately.

EMPLOYMENT STATUS

Statewide, roughly a quarter of early childhood professionals reported being furloughed or laid off. Impacts were not evenly felt, however, with job losses varying by race, job role, employment setting, education and credential levels, and geographic location.



23% OF ALL EDUCATORS EXPERIENCED FURLOUGHS OR LAYOFFS

Race & Ethnicity

Professionals of color reported higher rates of job loss as compared to their white peers. Early childhood educators who identified as Asian were most likely to report they had been furloughed or laid off (29.1%), followed by Black educators (28.8%). Fewer white educators (23.7%) reported that they were furloughed from their jobs, even though they represent the largest racial group within Colorado's early childhood workforce. Hispanic, multiracial, Indigenous, and professionals who identified as "other" were furloughed or laid off at slightly lower rates than the statewide average.

Educators Who Reported Being Furloughed or Laid Off by Race/Ethnicity	Count	%
White	605	23.7%
Hispanic	156	22.2%
Black	44	28.8%
Asian	30	29.1%
Indigenous	7	18.9%
Multiracial	13	19.1%
Other	8	13.1%

Job Role

Educators reported different rates of job loss by role. Almost half of those in floater/substitute positions experienced furloughs and layoffs. Informal caregivers, who self-identified as FFN caregivers, were also more likely to report being furloughed or laid off. Early educators who worked as lead teachers or assistants/paraprofessionals were less likely to report job loss, and family child care providers were the least likely to report losing their jobs because of the pandemic.



FURLOUGH/LAYOFF STATUS BY ROLE

Not Furloughed/Laid Off
Furloughed/Laid Off

Employment Setting

License-exempt providers (typically those providing infrequent or informal care to four or fewer children in a home-based setting) reported the highest rates of job loss by setting type, with 35.5% furloughed or laid off due to the pandemic. This was followed by center-based employees (29.7%), and those in family child care homes (17.9%). Preschool-based educators reported the lowest levels of furloughs and lay-offs within our sample (8.2%).



FURLOUGH/LAYOFF STATUS BY EMPLOYMENT SETTING

Ages Served

Early educators who worked with infants and toddlers were the most likely to be laid off or furloughed, as compared to educators who worked with older. Early childhood professionals working with 3- and 4-year-olds were less likely to be furloughed or laid off than the statewide average or than their peers working with other age groups. Approximately one-fourth of professionals working with school-age children reported furloughs or lay-offs.

FURLOUGH/LAYOFF STATUS BY AGES SERVED



JOB LOSS OR DISPLACEMENT

The financial effects of low enrollment and program closures caused many educators to permanently or temporarily lose employment. Some mentioned fluctuations in their employment status based on when their program received funding, such as loans through the Paycheck Protection Program (PPP). While furloughed or laid off, some sought employment at other programs or left the sector entirely.

Job loss and displacement had harrowing effects on the financial well-being of those affected. Some respondents who lost their jobs struggled to pay their bills and buy food. Others were afraid of losing their homes. Some educators reported collecting unemployment payments at some point during the pandemic, but noted that those payments were insufficient.

In addition to the financial impact of furloughs and layoffs, many educators revealed experiencing increased anxiety and despair related to employment changes. Still others who lost their jobs reported longing to go back to work with the children they cared for.

"I am heartbroken that I lost my job due to the virus. I loved this job and was happily working full time. Best job I've ever had."



EDUCATION LEVELS & CREDENTIALS

Colorado does not require a higher education degree to work in early care and education, but many professionals have pursued specific early childhood training and/or have received credentials that give them additional skills and opportunities.

Credentials

Results from this study show a link between early childhood credentialing and furloughs/lay-offs. Educators with credential levels between 1 and 3 reported the highest rates of job loss, tapering off with each incremental step up the credentialing ladder. Educators with higher credentials were less likely to report furloughs or lay-offs, up through credential Level 5. However, Level 6 respondents reported a slightly greater percentage of furloughs and lay-offs as compared to Level 5, which was the one deviation from the general pattern. Educators with credentials between levels 1 and 3 were 1.4 times more likely to report furlough status, as compared to those with credentials between levels 4 and 6 (p = .008). Overall, increased early childhood credentialing appeared to be a protective factor against pandemic-related job loss.



FURLOUGH/LAYOFF STATUS BY CREDENTIAL LEVEL

Education Levels

Educators with higher academic degrees were generally less likely to be furloughed or laid off than their peers without degrees. Those with doctorates, master's degrees, and bachelor's degrees were least likely to report job loss, while early childhood professionals with a Child Development Associate (CDA) credential, a high school diploma/GED, or an associate's degree were most likely to have been furloughed or laid off. Early childhood educators with an elementary teaching license and early childhood special educators were less likely to be furloughed or laid off as compared to their peers.

FURLOUGH/LAYOFF STATUS BY EDUCATION LEVEL



FURLOUGH/LAYOFF STATUS BY POSSESSION OF ELEMENTARY TEACHER'S LICENSE



Not Furloughed/Laid Off
Furloughed/Laid Off



FURLOUGH/LAYOFF STATUS: EC SPECIAL EDUCATORS

Location

Job losses varied by region across the state. Early childhood professionals in the Northeast reported the lowest rates of job loss at 6.5%, which fell well below the statewide average of 23.3%. Rates were also relatively low in the Southwest and West Central areas of the state. In contrast, educators in the Southeast, Northwest, and North Central regions all experienced a higher rate of job losses than the statewide average. The Metro and Pikes Peak regions, which have the state's largest population of early childhood professionals, experienced job losses in line with the statewide average.



EDUCATORS WHO WERE FURLOUGHED/LAID OFF BY REGION

Permanent Exit from the Field

We found that 9.8% of the early childhood professionals in our sample reported that they were not working and did not anticipate returning to work within three months. Within this group, 31.0% reported health and safety concerns which kept them from feeling safe enough to return to work settings. Another 14.5% reported that their programs were still closed, suggesting that they could not return to their prior position but might if given the chance. Smaller percentages of educators either took a job outside of the early care and education field, did not have needed child care to support a return to work, or could not find another job within the early childhood sector.

HEALTH & SAFETY

Educators generally expressed great concern about the health and safety implications of COVID-19. Some shared that their own underlying health conditions created too much risk of exposure within a child care setting. Others worried that they would bring home and transmit the virus to their family members when working in-person.

Many educators shared concerns that providers were not following new health regulations, did not have sufficient supplies, or were struggling to get children to comply with these measures. There was a huge concern for the spread of the virus among children and staff.

"I am uncomfortable working in child care at this time. Even though there are certain precautions in place, they are just that, precautions. I'm uncomfortable with the amount of exposure that is involved in working."



REASONS WHY EDUCATORS HAVE NOT RETURNED TO WORK



FINANCIAL WELL-BEING

Hours, Wages, & Benefits

Roughly half of early educators saw a decline in their hours and/or household income since the start of the pandemic, and nearly a quarter reported a decrease in wages. Access to benefits was relatively unscathed, with over three quarters (82.1%) of educators reporting no change in their benefits. It is possible that this lack of change in benefits may reflect the fact that many early childhood professionals did not receive employer-sponsored benefits before or during the pandemic. It may also be the case that some early childhood professionals access health benefits outside of direct employment (e.g., from a state exchange, Medicaid, or a family member).



STATUS OF FINANCIAL FACTORS

Disparities by Race & Ethnicity

Household income decreased more for some racial groups in the survey sample than for others. Black educators were most likely to report an income decline as compared to all other racial groups. Multiracial, white, and Hispanic early childhood professionals were less likely to report household income loss.



HOUSEHOLD INCOME DECREASE BY RACE/ETHNICITY

Similarly, while approximately 16.0% of all respondents indicated that it was difficult to meet their monthly payments, educators of color reported the most difficulty. Black educators reported the highest percentage within this category, followed by Hispanic, and "other"—all of which were above the statewide average.





RETENTION

Workforce retention is a critical issue for Colorado's early care and learning industry. The field has struggled with a lack of qualified professionals and high turnover rates, so the loss of any professionals from the field is difficult to absorb.

LOW WAGES & LACK OF RECOGNITION

Early educators are dissatisfied with insufficient pay rates. Because of the pandemic, teachers and caregivers working in essential roles shared frustration of working a job that puts them at risk for compensation that is often not enough to pay the bills. Some educators also expressed wanting appreciation for the important work that they do. Educators reported a lack of respect and compassion during the pandemic, and that they would like to see more concern for their well-being.

This tension between educators loving their jobs and grappling with low wages and a lack of recognition existed long before the pandemic. Emergency conditions have only worsened the situation. Educators struggled to provide care for children in a safe and developmentally appropriate manner while also managing their own health and responsibilities. This overextension has left some educators wondering if it is sustainable for them to remain in their profession.

"This pandemic has shown who is considered essential for the nation to continue to thrive and what's necessary to help people survive. The fact that I have to continue to put my life and the lives of my family in danger for other people, for my rate of pay is degrading."



Intent to Stay in the Job

Less than half of all educators (45.2%) were sure that they would stay in their position for the next two years. This suggests that approximately one of every two professionals plan to leave their current positions relatively soon, perpetuating a devastatingly high turnover rate for the field. Family child care educators were most likely to report an intention to remain in their roles (70.1%), while floaters/ substitutes were least likely to report an intent to stay (33.9%).



EDUCATORS' INTENTION TO STAY IN THEIR JOB FOR THE NEXT 2 YEARS

From a location standpoint, early educators in the North Central, Metro, and Pikes Peak regions were also less inclined to stay in their jobs for the next two years, when compared with their counterparts in the West Central, Northeast, and Southwest regions.



EDUCATORS WHO PLAN TO STAY IN THEIR JOB BY REGION

Intent to Stay in the Field

Less than half of all early educators (45.1%) indicated that they intended to stay in the early care and education field for the next five years. Of those, family child care providers were most likely to report that they would stay (60.9%), while floaters/substitutes were the least likely to report intention to remain in the field (35.5%).



EDUCATORS' INTENTION TO STAY IN THE FIELD FOR THE NEXT 5 YEARS

Educators in the Metro region were least likely to confirm plans to stay in the earcly childhood field, while educators in the Northeast and West Central region were mostly likely to affirm plans to remain.

70 63.9% 62.6% 59.5% 57.4% 60 56.5% 55.1% 54.1% 53.9% 50 40 30 20 10 0 Northwest Pikes Peak Metro Southwest Southeast West North Northeast (n=2,533) Central Central (n=36) (n=301) (n=131) (n=37) (n=465) (n=163) (n=379)

EDUCATORS' INTENTION TO STAY IN THE FIELD BY REGION

UNCERTAINTY OF REMAINING IN THE FIELD

Educators demonstrated uneasiness about what the future looks like, both during and beyond the pandemic. They feared outbreaks in their classrooms and workplaces—an emotional toll complicated by the uncertainty of the long-term effects that COVID-19 may have on young children's development and social-emotional well-being. Some also feared for their job security and ability to provide for their own families in the long run.

The list of reasons why educators question their likelihood to remain in the field is long. Among them are the stress of implementing new regulations while also caring for children, extra work without additional pay, and the possibility of exposing family members to a deadly virus. For those who are considering a new career or have already left the field, most said they are still passionate about early care and education, but that the risks are not worth the low pay.

The constant possibility of closure or an outbreak caused educators to question their job security, though many in open centers felt grateful to have work. Survey respondents who considered remaining in the field did not take this decision lightly. Many said they had never considered leaving their job and were sad to make such a difficult choice.

"I miss the students and what the classroom used to be, yet I'm also grateful I was still able to work and provide for my family.... I'm worried about what my situation will be and what education may look like in the next few months."



Effects of Credentialing on Intent to Stay

Approximately two-thirds of early childhood professionals with Level 4 to Level 6 credentials reported that they intend to stay in their jobs for the next two years and in the early care and education field for at least the next five years. These percentages declined somewhat for educators with lower credential levels.



EDUCATORS' INTENTION TO STAY IN THE FIELD BY CREDENTIAL LEVEL

Variations by Race & Ethnicity

Race did not have an impact on professionals' reported intent to stay in their jobs for the next two years. However, race does impact longer-term plans to stay in the field. Asian (52.6%) and Indigenous (52.9%) educators reported the highest intent to stay in the field for the next five years, while white educators and those who identified as "other" were least likely to say they wanted to remain in the field over that time span (44.3% and 43.0%, respectively).

PROFESSIONAL DEVELOPMENT

Many of the early childhood professionals in our sample were engaged in professional development prior to March 2020. However, only 68.7% were able to continue or complete their credentialing programs since then. This means that nearly one-third (31.3%) of educators had to either take a break from their coursework or were forced to abandon their professional development plans altogether.



EFFECT OF THE PANDEMIC ON EDUCATORS' ABILITY TO COMPLETE COURSEWORK/DEGREES

Income Security & Job Role

Three-fourths (76.3%) of early educators who reported that they had permanently quit their ongoing education programs had lost income since the pandemic began, while 18.4% reported no change in income and 5.3% reported an increase.

Over half (52.5%) identified as assistant teachers, aides, or paraprofessionals. In contrast, only 40.0% of those who stopped their continuing education identified as lead teachers.



EDUCATORS WHO PERMANENTLY QUIT PURSUING COURSEWORK/DEGREES

Location

The majority of those enrolled in ongoing education programs were in the Metro region. The Pikes Peak region fell significantly behind with 11.8% of educators enrolled in coursework or degree programs prior to COVID-19.



ENROLLED IN COURSEWORK/DEGREE PRIOR TO MARCH 2020

Between these two regions, educators in the Metro region reported higher rates of successfully completing or continuing their program, as compared those in the Pikes Peak region. Of those enrolled in coursework in other regions, educators in the Northeast had the highest percentage of completion during the pandemic, followed by North Central, and Northwest respondents.

COURSEWORK/DEGREE COMPLETION OR CONTINUATION BY REGION



INSTRUCTIONAL IMPACT

The pandemic had an unprecedented impact on the way early care and education professionals deliver care and instruction to young children. In some instances, early educators have had to teach children as young as three or four years old through remote learning. Others are providing in-person care, but must figure out how to keep children and themselves socially distanced. Neither of these approaches are reflective of training practices, and educators have had to figure out how to deliver high-quality services under less than ideal circumstances.

Socially Distanced Learning

Roughly one-third of early childhood professionals identified a need for additional materials such as toys, books, and manipulatives that would support small group instruction (35.9%), as well as training on strategies to use in a socially-distanced environment (31.5%). Approximately a quarter of respondents (28.0%) reported a need for curricula to promote social distancing. The need for these supports was especially great for early childhood special educators.



EDUCATORS REQUESTING LEARNING RESOURCES

• Special Educators (n=315 to 405) • Non-Special Educators (n=1,277 to 1,630)

Remote Learning

Approximately a quarter of early educators reported that they needed training and support on how to use online learning tools or remote learning equipment. Nearly as many indicated that they also needed access to online learning and communication platforms. The majority (90.3%) reported having access to internet service.

Even more indicated that the families they work with needed technological resources, training and support. Nearly one-third of educators reported that their families need remote learning equipment or access to online learning and communication platforms, and a quarter required support on how to utilize online learning programs or access to internet services. Overall, the picture is one of a digital divide for early childhood families, many of whom are literally not equipped to deal with the technological aspects of remote learning.



TECHNOLOGY NEEDS FOR EDUCATORS AND CHILDREN'S FAMILIES

Instructional Supports

More than one-third of early educators requested help with keeping families engaged and communicating with them. One in three also indicated a need for learning materials that could be delivered to families and curricula or lesson plans that specifically addressed remote and/or at-home learning. Educators also indicated a need for guidance on how to conduct online learning with young children (31.0%) and guidance to support children with language, behavioral, or special education needs (26.8%). These percentages were higher for early childhood special educators, suggesting that the special needs population may be more vulnerable to the negative aspects of remote learning.

CONCERN FOR DEVELOPMENTALLY APPROPRIATE LEARNING

Educators shared concerns about being able to offer developmentally appropriate learning experiences during the pandemic. Some wondered how mask-wearing and social distancing guidelines may hinder social-emotional and language development. At a time when health and safety are being prioritized, it was apparent that teachers and staff also care deeply about how to offer the highest quality care and education.

"I think the biggest concern I have is how to help kids thrive in this environment. I want to help encourage them to learn and play at school in a way that doesn't make it feel like their childhood has been robbed. It feels unfair that everything is shut down and canceled, and they can't do things that children normally get to do. I want to know how to help compensate for that while they're in school."



EDUCATORS REQUESTING INSTRUCTIONAL RESOURCES



• Special Educators (n=327 to 432) • Non-Special Educators (n=1,189 to 1,799)

HEALTH & MENTAL HEALTH RESOURCE NEEDS

In addition to instructional supports, many early educators are finding they need resources to understand, implement, and communicate health and safety guidelines. Some have also identified a need for resources to support children's social and emotional well-being.

Health Resources

Approximately one-third of early educators need greater access to cleaning and PPE supplies, as well as COVID-19 guidance to share with families. Roughly one in four professionals also reported a need for more guidance on proper cleaning and sanitation measures.



EDUCATORS REQUESTING HEALTH RESOURCES

Mental Health Resources

Educators identified a need for resources that will help children manage emotions and behaviors during this disruptive time. More than one-third of early childhood professionals requested guidance on facilitating friendship and play with social distancing, while approximately one in five requested materials for social/emotional learning or strategies to address separation anxiety in children.



EDUCATORS REQUESTING MENTAL HEALTH RESOURCES

Many families struggled to find affordable and consistent care for their young children prior to COVID-19, so the pandemic added new challenges to an already-difficult situation. Some parents were unable to find the care they needed due to service disruptions, while others were not comfortable sending their children back into group care settings. Families also lost income, experienced layoffs and furloughs, or had to work while juggling remote learning for their children.

ACCESS TO CARE

Changes to Child Care Arrangements

Following statewide stay-at-home orders and school closures, 64.3% of Colorado families with children birth through age 12 had to alter their child care arrangements. Families with school-age children experienced the most disruption, with 68.4% reporting child care changes during the shift to remote learning. Families of color and families headed by white parents reported similar rates of disruption to care plans.



Access to Care by Age

When surveyed in late summer, roughly one-third of families did not have the child care they needed. The majority of families with at least one child under four years old (74.6%) reported having needed care for all children. For families with school-age children (5 to 12 years old), that number fell to 61.4%, underscoring the challenges that families with school-age children experienced with unexpected school closures.



Access to Care by Race/Ethnicity

Access to care also varied based on families' race/ethnicity. Within Black, Asian, and Indigenous households, only two-thirds had access to care for their children under five, and only half had access to care for their school-age children. By comparison, approximately three-quarters Hispanic and white families had access to care for children under five, while about two-thirds had care for their school-age children.



FAMILIES WITH NEEDED CARE BY RACE/ETHNICITY

Access to Care by Income

Families who made less than \$25,000 per year were the least likely to have needed care for their children of any age. These families had the most difficulty accessing care for their children under the age of five (52.7%). Access to care increased with each higher income bracket, with families making over \$100,000 per year reporting the highest percentage of needed care.

PARENTS ARE EXPERIENCING A DOUBLE BIND

By and large, parents struggled to balance the need to continue working with the needs of their families. Many described this situation as stressful and unsustainable. Some parents reported working one or multiple jobs, attending school, or caring for elderly family members in addition to providing care for their children.

This dilemma existed for parents with all types of employment status and pre-pandemic care arrangements. Families who shifted to remote work and whose children were out of care felt they were falling short in both work duties and family responsibilities. Others who continued working in-person said they had no choice but to reduce hours to stay home with their children due to a lack of external care.

"I had my kids with me every day, all day, for four months straight while I was attending college fulltime and a caretaker for my grandfather."





ACCESS TO CARE BY INCOME

Access to Care by Location

Families in the Southwest part of the state reported the lowest access to needed care for both children under five years (66.7%) and school age children (58.3%). Generally, families with school-age children across the state struggled, with only one-half to two-thirds having needed care in all but two regions: the Northeast (77.8%) and the Southeast (71.4%). Statewide access to care for children under five was somewhat better, with approximately three quarters of families in most regions having access to care. Regional statistics should be interpreted with caution, as sample sizes in some regions were too low to generalize.



Factors Impacting Access to Care

Almost one-third of families indicated that they did not feel it was safe to send their children to group child care settings during the pandemic (32.4%). Roughly one in four families also reported they could no longer afford child care, could not find available care, or that their provider had closed temporarily due to the pandemic. Other parents identified reduced enrollment (14.2%), summer closures (11.1%), limited days/hours of operation (8.8%), or permanent closures (4.5%) as barriers to child care access.

BARRIERS TO CARE



Identified Care for 2020/2021 Academic Year

Between mid-July and early September of 2020, less than half of all Colorado families reported that they had a child care plan in place for the 2020/2021 school year. Indigenous (36.6%), Black (37.5%), and white Hispanic (39.9%) families were less likely to have finalized care arrangements, when compared to their white Non-Hispanic (46.0%), Asian (47.3%), and multiracial or "other" (45.0%) peers.



FINALIZED CARE PLAN BASED ON RACE/ETHNICITY

Families of school-age children (37.8%) were less likely to report finalized plans for the upcoming year than families with children under five years old (48.7%), suggesting that parents of school-age children may have lacked clarity due to fluctuating school district plans in the late summer and early fall.



FINALIZED CARE PLAN FOR 2020/2021 ACADEMIC YEAR BY AGE

CARE SETTINGS & PARENTAL PREFERENCES

Pandemic Care Arrangements

Roughly half of parents were providing direct care for their infants, with only one-third of families utilizing licensed care for children under one year of age. For toddlers, one-third of parents were providing direct care, and half were using licensed formal care settings. In this group, parents of toddlers were more likely to utilize a licensed child care center as opposed to a family child care home. These percentages were nearly identical for three- and four-year-old children, yet there was a shift toward pre-kindergarten.



CURRENT VS. PREFERRED CARE: UNDER 5

Current
Preferred

PARENTS PROVIDING DIRECT CARE

Many parents reported at least one adult in their household being out of work or working remotely during the pandemic. Out-of-work parents cared for their children at home during this time, either by choice or by necessity. Parents were making things work to the best of their ability, but knew it was not sustainable long-term.

Parents and guardians provided direct care to their children for various reasons, including the risk of exposure to COVID-19 and a lack of access to affordable child care. Many felt they had no choice but to arrange for one or both parents to reduce working hours or leave the workforce entirely to take on child care responsibilities. The double bind of the pandemic was clear for parents who were forced to balance full-time work responsibilities and providing fulltime direct care for their children.

"We will not use child care at this time due to COVID-19. Our child is home with one parent or the other at all times."





CURRENT VS. PREFERRED CARE: SCHOOL-AGE

Frequency of Care

About half of parents indicated that they need full-time child care during the 9:00 to 5:00 workday, with an additional 23.2% reporting a need for before and after school care. A quarter of parents indicated a need for occasional childcare, and a further 21.3% and 11.5% reported that they need summer camp or child care outside of a typical work schedule.



CURRENT CHILD CARE NEEDS

Factors Impacting Child Care Choices

Parents identified health and safety procedures as their top consideration (82.2%), followed by welcoming teachers and caregivers (79.6%). Hours and days of operation were the third-highest priority (67.4%), followed by availability of slots and openings (60.9%). Location (57.6%), program quality rating (55.2%), and resources for families (49.8%) were also key factors for over half of respondents. Parents less frequently cited support for children with special needs (25.1%) and support for diverse languages (18.7%) as considerations in their child care decisions.



Public Health Considerations

About 7 in 10 families reported that they would prefer to have their children in small group settings of 10 or less (71.1%), with only 17.0% preferring regular group sizes and 11.9% remaining neutral. Roughly half of families reported a preference for strict adherence to social distancing guidelines, with about 34.2% preferring more flexibility, and 17.0% expressing a neutral opinion. When asked about scheduling, about half of parents reported that they would like their children in a daily attendance schedule, with 33.5% preferring an alternate or rotating schedule, and 17.3 taking a neutral position.



• More Like This • Neutral • Less Like This

FINANCIAL WELL-BEING & WORK STATUS

The pandemic has taken a toll on families' financial well-being and employment. The impact has been uneven, with families of color and those in different regions of the state experiencing greater hardship.

Income Loss

Overall, half of Colorado families reported income loss since the start of the pandemic. When analyzing which groups were most affected by income declines, we found that families in our sample who made less than \$25,000 in annual salary were most likely to report income loss (71.3%). In contrast, those who made over \$100,000 per year were least likely to report income decline during the pandemic (31.8%). Our results suggest that a K-shaped recovery from the recession may have been an issue for Colorado families.



% OF RESPONDENTS WITH DECREASED INCOME BY INCOME RANGE

Income Loss by Race/Ethnicity

Half of Colorado families reported income loss since the start of the pandemic. This was especially true for families of color, with Indigenous (65.9%), Black (58.6%), Hispanic (55.1%), and multiracial or "other" (53.7%) families losing more than the statewide average. White (46.0%) and Asian (48.2%) families were least likely to report a decrease in household income.



INFORMAL VS. LICENSED CARE

The pandemic caused dramatic changes to child care arrangements. Families were frustrated by the shift toward or away from utilizing informal care for their children (e.g., family, friends, or neighbors). Some families who experienced a loss of center-based care due to closures turned to family members or informal networks. Parents expressed gratitude for this fall-back option, while others felt uncomfortable asking family or friends to watch their children.

Some families that utilized informal care prior to the pandemic indicated a shift to licensed or parent-directed care out of concern for the health and safety of informal caregivers. This was especially true of elderly and high-risk family, friends, and neighbors.

"Child care has become completely unavailable, and I have had to ask family to watch my children."



Income Loss by Location

Over half of families in the Northwest, the West Central, and the North Central regions experienced a decrease in annual household income during the pandemic. Close to half of all families in the Pikes Peak, Metro, Southwest, and Northeast regions experienced similar income declines. Families in the Southeast region reported the lowest rates of household income loss (29.1%), yet the sample was smallest for this group and should be interpreted accordingly.

Region	Count	%
Metro	2,303	48.4%
Northwest	378	54.7%
Southwest	112	46.7%
Southeast	30	29.1%
Pikes Peak	672	49.9%
West Central	7	51.1%
North Central	454	50.4%
Northeast	63	42.6%

Change in Work Status

Approximately one-fifth of families in the sample reported that they or someone in their household had been furloughed or laid off during the pandemic, while nearly a quarter reported that they were working fewer hours. Approximately one-third of all families reported that someone in their household was working remotely, and close to one-fifth reported no change in their work status.



CHANGE IN WORK DURING THE PANDEMIC

WORKPLACE FLEXIBILITY

Workplace flexibility, or the lack of it, has been critical for families during the pandemic. Flexibility most often translated to the ability to work from home, adapt hours, or bring children to work. Despite increased tension for parents who became responsible for full-time care in addition to full-time work, these parents were largely grateful for flexibilities that made child care closures slightly more manageable.

On the other hand, some parents shared that employers did not or could not offer similar accommodations. In many cases, these parents found it impossible to balance work and child care needs. Some even reported that one parent was forced to leave their job, sacrificing income to provide care and supervise remote learning.

"I have been working from home, but it is still an issue having to work from home while taking care of three children."



Job Status by Race/Ethnicity

White families were most likely to report working from home (50.6%), while Black (35.8%), Hispanic (36.5%), and Indigenous (39.3%) families were far less likely to report working remotely. Approximately a quarter of Black, Indigenous, multiracial, and Hispanic families also reported being furloughed or laid off since the start of the pandemic, compared to lower rates for white (20.7%) and Asian (15.7%) families. Indigenous (37.0%) and Hispanic (34.2%) families were more likely to report working fewer hours.

WORK STATUS BY RACE/ETHNICITY



Financial Stress

Over a quarter of families reported having difficulty paying their monthly bills, with specific communities of color reporting deeper impact to their financial well-being. Black (45.9%), Indigenous (41.4%) and Hispanic (34.8%) families were most likely to report difficulty, while white (20.9%) and Asian (22.5%) households reported the least difficulty paying bills.



MODERATE OR EXTREME DIFFICULTY PAYING BILLS BY RACE/ETHNICITY

SUPPORTIVE FACTORS

Benefits & Paid Leave

Nearly all families reported having medical insurance (95.4%), dental care (92.1%), and access to mental health services (89.0%), while almost two-thirds indicated that they receive paid leave.

Needed Support Services

Approximately half of families reported needing help paying for child care and managing the transitions caused by disruptions to school schedules. Roughly a third of parents also needed help finding child care or supporting children with challenging behaviors, and roughly a quarter reported a need for supports such as medical/food/cash assistance programs, parenting advice, and early intervention services. Fewer identified a need for mental health services (11.0%), dental (7.9%), or medical (4.6%) care and access to COVID-19 health guidelines (4.1%) as areas of needed support. These responses suggest that a majority of families have access to basic dental and medical care, yet they do not have access to affordable child care.


Our survey series explored the early care and education ecosystem in Colorado from the vantage point of providers, the workforce, and families. Each element was affected in a unique way by the advent and continuation of the pandemic, and we found that each community experienced the pandemic in a unique way.

IMPLICATIONS FOR PROVIDERS

Program Viability

Program viability. While many providers reopened in June and July, they were faced with enrollment declines, loss of teachers, and increased operating costs. Providers also could not source necessary PPE and cleaning supplies, and often felt that they lacked specific guidance in how to successfully manage the pandemic. Many expressed uncertainty in their ability to control the spread of COVID-19 and were concerned that a second wave of shutdowns would make it impossible to stay open.

Financial Challenges

Financial challenges. For Colorado's providers, revenue fell along with enrollment. Grants appeared to be a lifeline for many providers to weather initial closures. Loans were options for some, yet many providers reported that they were not considered appropriate candidates for bank and commercial loans. Still other providers felt that they did not know where to turn for financial support and requested more information to help navigate financial difficulties. From a personal perspective, respondents told us that they wanted to continue providing care for children, but feared that health risks and increasing costs would lead to future closures. Beyond financial concerns, providers indicated that children's social experiences and learning were at risk due to the pandemic.

IMPLICATIONS FOR EDUCATORS

Job Loss, Retention, & Turnover

When providers closed, many educators lost their positions or experienced decreases in hours and income. Some decided to leave the field entirely, suggesting that the pandemic pushed many educators into an early exit from an early childhood sector already struggling with high turnover rates. Thus, the pandemic both accelerated and worsened attrition for the early childhood workforce. We also found that the pandemic disrupted professional development for many educators, further limiting opportunities to increase pay and expertise in the field. These negative experiences were felt deeply by educators of color, suggesting that inequity in the system became worse during the pandemic.

Need for Support

Educators identified a need for additional training on how to provide remote learning to young children. They also need help engaging families in the learning process. Early childhood workers reported that they felt placed on the front lines of communicating

COVID-19 protocols to parents, but often did not feel equipped to do so. While many reported having access to necessary technology, educators felt that there was a lack of curriculum, materials, and training to properly support children's learning. For those who were working in the field, it was a difficult time of managing new pandemic protocols that increased their job responsibilities and stress, while also dealing with decreased household income. For those who could not work due to health concerns, it was potentially the end of their early childhood careers.

IMPLICATIONS FOR FAMILIES

Access to Care

Colorado families struggled to find needed care their children, continuing the pre-pandemic narrative of families lacking affordable and accessible child care. Emergency shutdowns meant that child care slots were lost, some permanently. Once providers reopened, many did so with reduced enrollment or reduced schedules. This resulted in less access to child care, and household income loss meant that already-steep tuition became impossible to afford. Parents were forced to make difficult choices with informal FFN caregivers or had to provide direct care while working. Many were no longer able to rely on grandparents or high-risk relatives due to health concerns.

IMPLICATIONS FOR AGENCIES

Critical Support

Grants and targeted funding programs helped providers stay open. These types of funding also increased affordable care for families. State-based early childhood credentialing and advanced degrees for the workforce were also protective factors against furlough status and may have served as a buffer against future attrition from the field. This suggests that programs supporting one part of the early child care sector will in turn support others, with providers, educators, and families reciprocally benefiting from agency initiatives that aim to improve access and affordability.

There remains an opportunity for private and public organizations to improve crisis response plans for children and their caregivers throughout the state. COVID-19 presented unique challenges that deepened inequities within a system that was already stretched thin. During the worst of the pandemic, many providers requested improved communication and clear guidance from public agencies. Early childhood educators reported tension between their roles as critical care providers, yet without the hazard pay and considerations afforded to essential workers in other industries. Families indicated that they did not have the care that they needed and felt that they did not have supports along their journey to source and pay for childcare during the pandemic. These concerns present opportunities for agencies and organizations to redefine supports and service delivery within Colorado's early childhood sector in times of crisis.

PUBLIC AGENCIES

Public Funding

As observed in our survey, Colorado's providers, educators, and families benefited from public funding programs that were either developed or repurposed in response to COVID-19, such as the ECCC and CCCAP. It is clear that offering grants and public funding to providers is an effective way to promote sustainability, as these types of funds were critical for providers who were able to remain open during the pandemic.

Preference for Grants

There remains a need for sustainability grants for providers statewide providers will likely need ongoing grant support to continue to survive the pandemic.

Rule Flexibility

As noted, programs such as CCCAP changed payment rules in response to COVID-19. This included compensating providers for additional absences. The new policy was critical in a time when many parents did not feel that it was safe to return children to care. As the pandemic continues, absence payment policies may need to be extended so that providers can continue to operate. This in turn will stabilize teacher employment by maintaining revenue and will preserve child care slots for children in the future.

Scholarships for Professional Development

For educators, the inference is that increased expertise and training can promote job security and overall intent to remain in the EC field. Yet professional development was disrupted during the pandemic, with many unsure if they would be able to continue in future. To address this, scholarships for professional development may be a way to combat the unequal impact and improve retention within the EC sector.

Expanded CCCAP Flexibility

Many parents who would not qualify for CCCAP based on income limits were still struggling to find child care. The inference is that the pandemic has created a deeper need outside of traditional definitions of CCCAP eligibility. Counties may wish to consider expanding their eligibility criteria in order to meet the unprecedented needs of all parents in Colorado.

Programs That Promote Equitable Access to Quality Care

Similar to the creation of the ECCC, new programs may be needed to address the growing divide between families of color and their white peers. Recent legislation such as universal prekindergarten presents opportunities to level the playing field for school-readiness skills, but there remains a need for equitable access to quality childcare for families with children birth to three and for minority parents, many of whom may not benefit from the transition to remote work.

Supports for Parents Seeking Care

Parents also requested help with finding childcare during the pandemic. Resource and referral agencies have been central to creating lists of available providers during emergency shutdowns through local early childhood councils, and disseminating information to the community investing more in resource and referral to support a sustainable online system may support this system, benefiting families by streamlining the current matching approach.

PRIVATE INDUSTRY

Adaptive Work Policies

We often heard from providers and from families about the critical nature of child care as an economic lynchpin. Given the economic impact of child care - or rather, the lack of necessary care—there is an opportunity to partner with the business community to develop mutually beneficial policies. First and foremost, we found that many families were providing direct care for their children while working remotely. With school closures, parents also became teachers in a remote learning environment. To successfully navigate these multiple roles, families need adaptive work policies such as flexible hours and scheduling that are sensitive to their situations.

Collaboration

However, remote work was not available to all families statewide. We found that parents of color were less likely to have access to telework, and thus were in a double-bind of needing care in order to physically go to work during a time of unprecedented provider closures. For these families, it is important to expand the understanding of what families need to respond to the pandemic. This suggests that businesses may benefit from industry-specific templates that help chart a course for employee needs during the pandemic. Possibilities include providing quality onsite childcare, supporting employees as they search for a child care provider, ensuring access to medical and paid leave benefits, and providing hazard pay. Yet these types of initiatives can be a shared responsibility between private and public programs. Similar to the reciprocal benefits of child care funding, collaboration between business and public agencies can work to improve outcomes for all families.

PUBLIC HEALTH & EDUCATION

Access to Testing & Vaccinations

Our childcare educators perform an essential service for Colorado families. As front-line workers, they are often faced with personal risk while providing child care. It is important that our educators continue to be provided with free, rapid, and frequent testing for COVID-19, both for their personal health and also to decrease the likelihood of community spread. This leads into criteria for vaccine distribution: regardless of the population served, early childhood workers should be considered a priority for receiving vaccines now and in future, in recognition of the critical nature of their work. This may help protect against teacher shortages and decrease the potential for classroom closures due to exposure.

Access to Child Care-Specific COVID-19 Guidelines

Early childhood educators also need tools and training to maintain guidelines and address COVID-19 in their care settings. Educators and providers need access to information and agencies that can quickly respond to their questions and concerns. However, many providers were without informational resources, or did not know where to turn for support. Developing and communicating a firm protocol with age-appropriate recommendations will improve their ability to keep themselves and the children they serve as safe as possible. This may necessitate improved collaboration between health departments, health consultants, and providers in future.

Access to Materials

Providers and educators increased cleaning and hygiene protocols in response to the pandemic. Many also altered operational processes. However, materials such as thermometers for temperature screenings, cleaning supplies to promote sanitation, and additional space for social distancing were difficult, if not impossible to find for many providers. Different types of providers also felt that regulations and guidelines were focused only on centers, whereas the unique needs of family child care homes were not addressed (e.g., the feasibility of socially distanced pick up and drop off procedures). This suggests that targeted and nuanced guidelines may help to accommodate specific provider needs in future.

Remote Learning Support

During the emergency shutdown and the ensuing summer months, some providers engaged in remote learning, yet many felt that they lacked necessary materials. Early childhood educators need formal curricula and materials that specifically address socially distanced learning, and they need training on how to provide quality learning opportunities in virtual settings. Teacher training programs can incorporate instruction on tech platforms like Zoom and Google Meet so that educators are prepared for virtual learning. Virtual learning also exposes a digital divide in access to high-speed internet and needed technology. Families in rural areas or with lower income do not have the same ability to engage with online learning. To overcome this barrier, concerted efforts by school districts and public agencies can improve infrastructure in rural and underserved areas and provide grants for families who cannot afford access. During times of remote learning, schools can also coordinate alternative care options for parents by matching parents with other available providers.

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COLORADO REGIONAL MAP



METRO

NORTH CENTRAL

- NORTHEAST • SOUTHEAST
- PIKES PEAK
- SOUTHWEST
- WEST CENTRAL
 NORTHEAST

RESPONDENTS BY COUNTY

Region	County	Count	% of Total
Metro	Adams	90	7.5%
Metro	Arapahoe	100	8.3%
Metro	Boulder	81	6.7%
Metro	Broomfield	14	1.2%
Metro	Denver	154	12.8%
Metro	Douglas	85	7.0%
Metro	Jefferson	125	10.4%
Pikes Peak	Custer	9	0.0%
Pikes Peak	El Paso	108	8.9%
Pikes Peak	Fremont	9	0.7%
Pikes Peak	Pueblo	27	2.2%
Pikes Peak	Teller	6	0.5%
North Central	Larimer	88	7.3%
North Central	Morgan	11	0.9%
North Central	Weld	74	6.1%
Northeast	Cheyenne	0	0.0%
Northeast	Elbert	2	0.2%
Northeast	Kit Carson	6	0.5%
Northeast	Lincoln	2	0.2%
Northeast	Logan	9	0.7%
Northeast	Phillips	4	0.3%
Northeast	Sedgwick	1	0.1%
Northeast	Washington	3	0.2%

Northeast	Yuma	5	0.4%
Southeast	Baca	0	0.0%
Southeast	Bent	1	0.1%
Southeast	Crowley	1	0.1%
Southeast	Huerfano	1	0.1%
Southeast	Kiowa	0	0.0%
Southeast	Las Animas	2	0.2%
Southeast	Otero	4	0.3%
Southeast	Prowers	1	0.1%
Northwest	Chaffee	6	0.5%
Northwest	Clear Creek	2	0.2%
Northwest	Eagle	24	2.0%
Northwest	Garfield	16	1.3%
Northwest	Gilpin	2	0.2%
Northwest	Grand	7	0.6%
Northwest	Jackson	2	0.2%
Northwest	Lake	3	0.2%
Northwest	Moffat	3	0.2%
Northwest	Park	3	0.2%
Northwest	Pitkin	4	0.3%
Northwest	Rio Blanco	2	0.2%
Northwest	Routt	9	0.7%
Northwest	Summit	7	0.6%
West Central	Delta	4	0.3%
West Central	Gunnison	5	0.4%
West Central	Hinsdale	1	0.1%
West Central	Mesa	39	3.2%
West Central	Montrose	4	0.3%
West Central	Ouray	2	0.2%
West Central	Saguache	2	0.2%
West Central	San Miguel	4	0.3%
Southwest	Alamosa	7	0.6%
Southwest	Archuleta	1	0.1%
Southwest	Conejos	0	0.0%
Southwest	Costilla	2	0.2%
Southwest	Dolores	1	0.1%
Southwest	La Plata	17	1.4%
Southwest	Mineral	1	0.1%
Southwest	Montezuma	6	0.5%
Southwest	Rio Grande	3	0.2%
Southwest	San Juan	0	0.0%

QUALITATIVE THEMES BY SURVEY

Provider Survey Code	Description
Bureaucracy/systemic	Experience(s), communication, and/or collaboration (or lack thereof) with state government agencies, officials, and policies
Change guidelines	Discomfort or difficulty with implementation of COVID-19 guidelines in child care setting, or disagreement with guidelines themselves and a desire for them to be changed
Commitment/loyalty/responsibility	Devotion to health, safety, and wellbeing of families, children, and staff
Concerns about developmentally appropriate learning	Difficulty with or commitment to offering developmentally appropriate instruction for age(s) of children in care
COVID-19 guidelines social dist. hand wash	Experience with COVID guidelines that child care professionals are expected to implement, such as social distancing, sanitizing, hand washing, and mask-wearing
Emergency worker status/ECCC	Participation in and/or Feedback on Emergency Childcare Collaborative, providing care for children of emergency workers
Enrollment decline	Providers experiencing lower enrollment numbers due to group size limitations or parents opting not to send children
Family child care home concern	Concerns particularly relevant to the experience and treatment of home-based family child care providers
Fear/panic	Anxiety, stress, and worry caused by operating child care center/home during pandemic and balancing needs of families, children, and staff all while trying to keep everyone healthy and safe
Financial hardship	Negative financial impact on providers, lack of funding to support staying open
Funding - private	Receiving or desire to receive grants, loans, or other form of financial support from a private organization, business, or foundation
Funding - public	Receiving or desire to receive grants, loans, or other form of financial support from a government agency (ex. CCCAP, ECCC, PPP)

Appendix B

Health/safety	Fears or concerns related to health and safety implications of COVID
High risk employees	Mention of staff or self belonging to high- risk group and associated health concerns
Income loss	COVID-related reduction in income
Instructional changes	Adjustments that providers have implemented or plan to implement about how they deliver instruction and run day- to-day activities
Isolation	Feeling alone or confined due to current circumstances
Leaving field	Mention of plans to leave field or decision to leave ECE field
Maintaining employees	Concerns about or expressions of difficulty finding and retaining staff, or having to make or consider making lay offs
Medical guidance/consultants	Mention of receiving guidance or communicating with medical professionals and/or consultants
Mental health	Mention of how pandemic has taken emotional toll/impacted mental health of providers, staff, families, and/or children
Open/closed	School/summer camp/provider is or was open/not open
Private/parochial	Comments related to status as a private or church program
Second wave	Mention of or concern regarding second wave and future progression of pandemic, precautions and preparation being taken in case
State/public agencies (positive or negative	Positive or negative interactions with state/ public agencies (OEC, DPP, Councils, etc.)
State guidelines/communications	Feedback or comments regarding guidelines issued at the state-level or communication with state agencies
Supplies/materials	Difficulty acquiring supplies or mention of a lack of supplies needed to keep staff and children safe, needed to implement guidelines effectively (cleaning supplies, PPE, instructional materials)
Training	Desire to access or mention of utilizing training for staff (health or professional)
Uncertainty	Concern for the continued impact of the pandemic on operations and business, not knowing what the future will hold
Virtual setting/learning	Experience or challenges with virtual learning

Workforce Survey Code	Description
Balance	Experiencing tension with competing priorities (work, family, etc.)
Budget cuts	Mention of employer having had to make budget cuts or concern about future budget cuts and the implications for pay and job security
Changes	Operational or instructional adaptations made to accommodate children, family, and staff in uncertain circumstances
Constant change	Experience dealing with frequent adjustments in guidelines and developments in pandemic
Difficulty providing SpEd/IEP services	Challenges experienced meeting the needs of children who receive special education services and supporting those with IEPs
Difficulty with new rules	Challenges understanding, experienced when implementing, or disagreement with new rules put in place due to pandemic
Disruption	Day-to-day interruptions experienced due to pandemic
ECCC	Comments about participation in the Emergency Child Care Collaborative
Emotional toll on provers/teachers	Effects of pandemic on the emotional wellbeing of child care providers and teachers
Families do not have materials needed for virtual learning	Working with families who lack sufficient materials (computers, internet access) necessary to participate in a virtual setting
Fear/panic/anxiety	Uneasiness and despair related to the effect pandemic has had on one's professional and/or personal life
Feeling unappreciated	Feeling undervalued as an EC educator, expressing a desire for gratitude or more compensation
Financial hardship	Negative impact of pandemic on personal or professional finances
Furloughed or laid off	Experiencing temporary or permanent loss of employment due to pandemic
Grants/funding	Comments on having received or a desire/ need to receive grants or funding to stay afloat
Group sizes	Perspectives on or experience with changing amounts of children allowed in classroom/care setting

Hard to distance	Difficulty implementing social distancing guidelines between children or between children and staff
Health and safety concerns	Fears or concerns related to health and safety implications of COVID
Income loss	COVID-related reduction in income
Increased stress	Heightened tension and pressure related to the effects of the pandemic
Insufficient pay	Inadequate pay to support oneself and/ or family, expressions of desire to be paid more given essential nature of work
Lack of benefits	Absence of employment benefits such as insurance or paid time-off
Lack of children to support staying open	Enrollment decline posing financial challenges
Lack of clarity around new health precautions	Confusion regarding health precautions as related to child care settings
Lack of communication/clarity/guidance	Absence of or inadequate communication and guidance geared towards ECE community
Lack of resources	Expression of inadequate access to resources more generally (instructional, cleaning supplies, support for families, etc.)
Leaving EC sector	Mention of plans to leave field or decision to leave ECE field
Mental health/trauma	Mention of how pandemic has taken emotional toll/impacted mental health of workforce, families, and/or children
Moving to in-home care instead of center- based work	Decision to move away from center environment and pivot to providing home- based care
Need for supplies/PPE	Difficulty acquiring supplies or mention of a lack of supplies needed to keep oneself and children safe, needed to implement guidelines effectively (cleaning supplies, PPE, instructional materials)
Need more training on online learning	Desire to receive training in order to deliver instruction more effectively in virtual learning
Negative view of employer	Unfavorable attitude toward employer given response to pandemic or otherwise
Not enough PTO to quarantine/stay at home when sick	Insufficient paid time off in case of mandated quarantine if exposed to COVID
Not working	Temporary decision to discontinue work in ECE due to pandemic

Parents not engaged in remote activities	Challenges with parental participation in online learning (could be due to lack of technology or internet access, unavailability, etc.)
PD/continuing education	Effect of the pandemic on pursuing professional development/higher education opportunities
Positive view of employer	Favorable attitude toward employer given response to pandemic or otherwise
Preference for smaller groups	Desire to provide care in small group setting or expression of fondness for small groups
Program is closed	Permanent closure of program/school
Reduced hours	Employers have decreased staff hours due to pandemic-related challenges such as enrollment drops and income loss
Spanish	Quotes from Spanish-speaking respondents
State/public agencies	Positive or negative interactions with state/ public agencies (OEC, DPP, Councils, etc.)
Uncertainty about future	Concern for the continued impact of the pandemic on wellbeing and/or job security, not knowing what the future will hold
Underemployment	Comments about how position as an EC educator does not fully utilize skills, abilities, education, or training
Virtual earning_negative	Challenges/issues with virtual learning
Virtual learning_positive	Positive experience with virtual learning
Worry about developmentally appropriate learning	Difficulty with or commitment to offering developmentally appropriate instruction for age(s) of children in care

Family Survey Code	Description
Adaptation_negative	Coping but with negative impact
Adaptation_positive	Coping with positive impact
Additional caregiving	Families or parents taking on additional caregiving due to the pandemic
Benefits	Medical, PTO
Cannot afford child care	Cost too high, not enough income
Care unavailable	Parents unable to access child care due to pandemic
CCCAP feedback	Issues with finding care that takes CCCAP, meeting CCCAP requirements etc. due to COVID

Changing providers	Relocating/finding a new provider
Child care hours - changes	Changes to hours offered for care, or hours needed for care
Concern for elderly/high risk family members	Parental concern about sending children back to school/going back to work due to multi-gen families; grandparents no longer providing care due to health concern, balancing needs of multi gen family, concern for high-risk family member
Disruption/change in plans (change)	Had to change/make changes, unable to continue as before
Double bind (work vs. needs of family)	Parents struggling with working and taking care of family needs
ECCC	Parents who accessed Emergency Child Care Collaborative
ESL	Mark for foreign language
Guidelines (change in, following, or lack of communication)	Guidelines changing, ability to follow, lack of communication/resources
Health/safety	Fears over Health and Safety, Sadness/ Despair related to current state of COVID
Housing loss or concerns	Eviction, homelessness etc.
Impact on financial well-being	Difficulty with finances, hard to pay bills
Income loss	Decrease in income
Informal care (FFN)	Parents turning to friends, family, neighbors etc. for care
Instability/cannot sustain	Feelings of "barely holding on," "can't keep this going much longer"
Internet/tech	Concerns about internet/technology access for families
Isolation/separation	Physical and emotional
Job loss/employment concern	Furlough, lay off, fear of losing job, and reduced hours
Known exposure	Exposure to COVID/diagnosis of COVID/ quarantine due to COVID
Lack of support	No family or support for child care
Learning loss	Parental concern about the learning loss from missing school or virtual learning
Limit of slots/less slots	Unable to obtain care due to group limits
Mental health/trauma	Expressions of concern for mental wellness, reference to trauma
Nannies/pods	Parents using nannies/tutors or pods for care/learning while schools and childcare were closed
Needed more care	Needed additional care

Needs of older children	Differences in the needs of children who are school age
Needs of younger children	Differences in the needs of children who are birth to age 4
New rules/regulations for child care	Difficulty with new rules/guidelines related to COVID and child care
Older children caregivers/latchkey	Older children needing to serve as caregivers for younger while parents work/ home alone
Open/closure	School/Summer Camp/Provider is open/not open; provider open/not open/reenrollment
Opting out	Choosing to leave care setting or school or activity
Parents providing direct care/at home with kids	Parents caring for their kids at home/ choosing to provide care at home
Resources (community, neighborhood, external)	Access to resources other than family
School (general)	References to school not related to open/ close or virtual learning
Shift work/nontraditional hours	Parents who work non-traditional hours/ shift work/gig work and had trouble finding care
SpEd/IEP concerns - developmental concerns	Parents expressing concerns for their children's developmental needs or SPED/ IEP needs
Uncertainty	What will happen in future? What is next? How will we cope?
Virtual learning_negative	Issues with virtual learning
Virtual learning_neutral	Parents express neither negative nor positive thoughts, just mention virtual learning
Virtual learning_positive	Positive experience with virtual learning
Work flexibility	Work from home/can adapt hours/can take children to work/employer is flexible
Work inflexibility	Cannot work from home/cannot adapt hours/cannot take children to work/ employer is inflexible

STATISTICAL ANALYSES

Open/Closed Status and Public Funding

								95% Confidence	
Open/Closed Status of Providers by Funding Type ^a		В	Std. Error	Wald	df	Sig.	Exp(B)	Lower Bound	Upper Bound
Open with Reduced Enrollment	Intercept	-0.049	0.095	0.271	1	0.603			
	No Public Funding Participation	-0.348	0.140	6.190	1	0.013	0.706	0.537	0.929
Closed Due to Pandemic	Intercept	-1.745	0.171	103.671	1	0.000			
	No Public Funding Participation	0.490	0.220	4.945	1	0.026	1.632	1.060	2.514
Closed Due to Summer Schedule	Intercept	-0.945	0.125	57.245	1	0.000			
	No Public Funding Participation	0.101	0.173	0.340	1	0.560	1.106	0.789	1.551

a. The reference category is: Open.

Open/Closed Status and Emergency Child Care Collaborative

								95% Confidence	
								Lower	Upper
Is your program currently open and	l serving children? ^a	В	Std. Error	Wald	df	Sig.	Exp(B)	Bound	Bound
Open	Intercept	0.928	0.128	52.459	1	0.000			
•	ECCC	3.150	0.596	27.911	1	0.000	23.326	7.251	75.038
	Participation								
Open with Reduced Enrollment	Intercept	1.059	0.126	70.720	1	0.000			
	ECCC	2.343	0.600	15.231	1	0.000	10.408	3.210	33.752
	Participation								
Closed due to Summer Schedule	Intercept	0.575	0.136	17.958	1	0.000			
	ECCC	0.273	0.703	0.150	1	0.698	1.313	0.331	5.212
	Participation								

a. The reference category is: Closed due to Pandemic.

Enrollment Decline and Emergency Child Care Collaborative

Descriptives							
						95% Confidence	
				Std.		Lower	Upper
		Ν	Mean	Deviation	Std. Error	Bound	Bound
Decrease in Infant Enrollment	ECCC Participation	160	-38.9104	38.53112	3.04615	-44.9265	-32.8942
	No ECCC Participation	183	-45.6161	48.98144	3.62081	-52.7603	-38.4720
	Total	343	-42.4881	44.47710	2.40154	-47.2117	-37.7644
Decrease in Toddler Enrollment	ECCC Participation	214	-25.9241	40.11739	2.74237	-31.3297	-20.5184
	No ECCC Participation	332	-35.3699	46.23462	2.53745	-40.3614	-30.3783
	Total	546	-31.6677	44.14264	1.88913	-35.3785	-27.9568
Decrease in 3 year old Enrollment	ECCC Participation	220	-29.9165	40.46179	2.72793	-35.2929	-24.5401
	No ECCC Participation	362	-45.6170	45.15725	2.37341	-50.2845	-40.9496
	Total	582	-39.6821	44.07027	1.82677	-43.2700	-36.0942
Decrease in 4 year old Enrollment	ECCC Participation	218	-30.6268	47.73030	3.23270	-36.9983	-24.2552
	No ECCC Participation	349	-46.4988	47.09585	2.52098	-51.4571	-41.5406
	Total	567	-40.3963	47.92588	2.01270	-44.3496	-36.4431
Decrease in School Age Enrollment	ECCC Participation	163	-7.7619	63.28708	4.95703	-17.5507	2.0268
	No ECCC Participation	289	-39.5732	65.64165	3.86127	-47.1731	-31.9733
	Total	452	-28.1014	66.51373	3.12854	-34.2498	-21.9531

ANOVA				Mean		
		Sum of Squares	df	Square	F	Sig.
Decrease in Infant Enrollment	Between Groups	3838.593	1	3838.593	1.946	0.164
	Within Groups	672709.951	341	1972.756		
	Total	676548.544	342			
Decrease in Toddler Enrollment	Between Groups	11610.102	1	11610.102	6.013	0.015
	Within Groups	1050362.165	544	1930.813		
	Total	1061972.267	545			
Decrease in 3 year old Enrollment	Between Groups	33731.634	1	33731.634	17.872	0.000
	Within Groups	1094680.203	580	1887.380		
	Total	1128411.837	581			
Decrease in 4 year old Enrollment	Between Groups	33803.899	1	33803.899	15.083	0.000
	Within Groups	1266236.061	565	2241.126		
	Total	1300039.960	566			
Decrease in School Age Enrollment	Between Groups	105465.103	1	105465.103	25.113	0.000
	Within Groups	1889793.155	450	4199.540		
	Total	1995258.258	451			





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