

What's Next for Schools

Balancing the Costs of School Closures
Against COVID-19 Health Risks

SCP REPORT NO. 1-21 | FEBRUARY 2021

social capital project

A project of the Joint Economic Committee – Republicans

jec.senate.gov | G-01 Dirksen Senate Office Building Washington, DC 20510 | (202) 224-5171

The COVID-19 pandemic altered the lives of every family in America and particularly affected American families with school-aged children. In March 2020, every school district in the country closed and transitioned to remote learning, and this posed new challenges for parents, teachers, and students. The virus persisted throughout the fall and winter, and so have the associated challenges for families and children.

Some schools began the process of reopening in the spring, while others either remained closed or canceled their reopening plans amidst rising infection rates. As of spring 2021, 24 percent of schools remain fully remote, and 18 percent are teaching fully in person.¹ The majority of schools (51 percent) are operating under some type of hybrid model, offering in-person instruction on limited days of the week or for select grade levels, with no option for full-time in-person instruction.²

The evidence suggests that this disruption to children's education harms their learning, as well as the mental health of parents, students, and teachers. Parents are facing additional stress as a result of overseeing their children's at-home education, teachers must adapt to a new method of instruction, and children have entered the uncharted territory of at-home learning, separated from their teachers and friends. While the costs are concerning, decision makers have the unenviable task of balancing the costs of school closures against the health risks of in-person instruction.

This paper surveys the research on the costs of school closures and the health risks of reopening in order to help inform local decision-making. School closures have negative, predictable ramifications for parents and students, with the greatest harm concentrated among the youngest students. At the same time, research also indicates that young children are less likely to contract and spread COVID-19, and this suggests that local leaders should prioritize young children's return to school.

The circumstances that American families find themselves in during the pandemic are unusual. Families' diverse needs during the COVID-19 pandemic underscore the drawbacks of a traditional one-size-fits-all approach to education and highlight the need for innovative alternatives to traditional options, now and in the future.

THE ACADEMIC IMPACT OF SCHOOL CLOSURES

For a variety of reasons, extended school closures have harmful implications for children's academic and developmental progress. First, early childhood education is dependent on sensory and social experiences that are not easily replaced at a distance. Additionally, recent research estimates that remote learning will result in considerable learning losses among older students, and these losses will have long-term effects.

Developmental Losses

It is unlikely that distance learning can serve as a suitable replacement for the classroom for young children. To begin with, closing schools separates children from important learning tools used in the classroom. To the extent these tools are not adequately replaced at home, this separation may hinder children's education and development.

For instance, a primary method used in the instruction of young children is sensory play—hands-on activities that aid learning by engaging the five senses. Sensory play has been referred to as “the foundation of all the skills children will use in school learning to read, write and solve math and science problems.”³ For example, young children's use of blocks as learning tools can help build the foundation for math skills by aiding the development of spatial awareness and pattern recognition. Research also suggests that sensory play-based experiences in preschool and kindergarten result in better social and academic outcomes than direct instruction.⁴

Another consequence of remote learning is that it can lead to reduced social development. As many adults have learned, even the best online experiences can hardly replicate in-person interactions. Children are less likely to learn how to interact with peers and adults without in-person schooling or extracurricular activities such as sports. In a Pew Research Center survey conducted in fall 2020, 47 percent of parents with young children said they were more concerned about their children falling behind in social skills than they were before the pandemic, compared to just seven percent who were less concerned.⁵

By decreasing the amount of time children spend learning and socializing in school, school closures have also led children to increase their use of digital media, exacerbating parents pre-existing concerns about their children's screen time. In a Pew Research survey conducted in early March, just before pandemic restrictions went into effect, 71 percent of parents with children under 12 reported being at least somewhat concerned that their children were using screens too often.⁶ Prior to the pandemic, children ages five to eight were already using screen media for more than three hours per day, with the large majority of that time spent watching television or online videos.⁷ Since then, Nielsen ratings data show that television and video viewing among children has only increased.⁸ Similarly, survey data indicate that parents' concerns have grown as screen use among their young kids has increased.⁹

Unfortunately, research suggests that higher levels of television watching can have negative effects on young children's development. For example, higher levels of television viewing is linked to poorer attention issues among young children.¹⁰ Although the bulk of the literature connecting television watching and developmental outcomes focuses on children who are not yet school age, more frequent television viewing among school-aged children has been associated with lower physical health, less pro-social behavior, and decreased academic achievement,¹¹ and some of these adverse outcomes seem to persist into young adulthood.¹²

Beyond television watching, there may be additional reason for pause with regard to children's increased screen use. For instance, preliminary results from a ten-year longitudinal study of 11,000 U.S. nine- and ten-year-olds indicate a relationship between increased screen use and lower scores on cognitive and language tests.¹³ Overall, the available evidence suggests that remote learning is suboptimal for younger students' development.

Learning Losses

School closures threaten to disrupt children's education, leading to poorer academic outcomes and potentially worse economic outcomes later in life. Just as students experience a "summer slide," and forget much of what they learned over the past year during summer vacation,¹⁴ so students today are experiencing a "COVID slide."

Using past research on summer learning loss, as well as work on human capital investment and other interruptions to students' education, several studies have attempted to estimate the learning loss resulting from COVID-19 school closures. These studies predicted that severe learning losses would dramatically set children back in the fall semester.¹⁵

Later in the year, researchers were able to use real-world data to quantify the magnitude of the COVID learning slide. According to one study of grades 1-8, students in many grades were reading close to expectations in the fall semester, though others were several weeks behind. Furthermore, every grade was behind in math, in some cases up to 12 or more weeks behind.¹⁶ Another study of grades 3-8 similarly found that students had made some progress in math and learning since the pandemic began, with reading ability similar to past years but math ability roughly 5 to 10 percentage points below normal.¹⁷

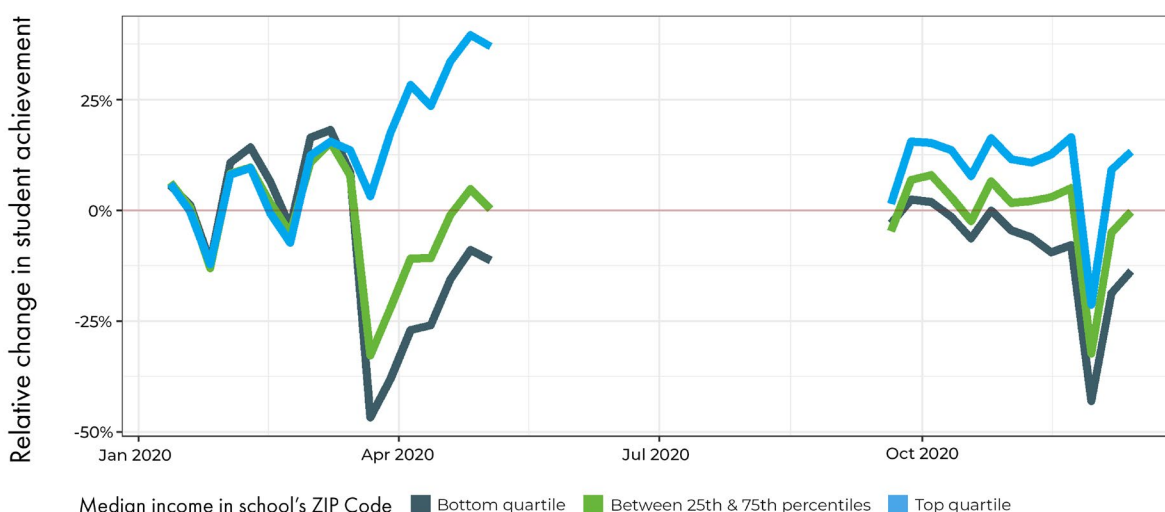
Nevertheless, teachers and parents seem more skeptical of students' abilities than study results suggest. In an October 2020 survey, 66 percent of teachers said that most students were less prepared for grade-level work compared to last year, and 27 percent reported that a majority of their students were significantly less prepared. Only 19 percent of teachers reported that they had covered all or nearly all of the material they would have covered by this point a year ago, while 56 percent said that they had covered half or less of last year's material.¹⁸ Similarly, only 40 percent of parents believe that their children have learned as much at home as in the classroom.¹⁹

The COVID slide may be particularly harmful to low-income students, partly due to differences in home environments and access to the technology necessary for online learning.²⁰ Assuming a complete return to in-person instruction in January 2021, McKinsey estimated that low-income students will lose 12.4 months of learning compared to the overall average loss of 6.8 months.²¹ The

disparity is due to a variety of factors; low-income students are less likely to have a high-quality learning environment at home free of distractions, less likely to have access to their own devices dedicated to remote instruction, and less likely to engage in online school with the same consistency as students from higher-income families.²² Indeed, in an October 2020 survey, 33 percent of teachers in the highest-poverty schools reported that students were significantly less prepared than the year prior, versus 16 percent of teachers in low-poverty schools.²³

Data from Harvard University's Opportunity Insights highlights these disparities (Figure 1).²⁴ Prior to the pandemic, rates of student progress were relatively similar across schools aggregated by their respective ZIP codes' median incomes. Since then, students in ZIP codes in the top quartile by median income have progressed further in online math courses than those from ZIP codes in the bottom quartile.²⁵ They have also participated far more consistently in online math than those from areas in the three lower quartiles.²⁶

Figure 1: Online Math Learning Achievement by School ZIP Code's Median Income (as of December 13, 2020)



Source: Opportunity Insights Economic Tracker

In addition to learning loss varying by income, learning loss also appears to vary with age. Younger children are likely to face the greatest setbacks because they are supposed to be learning foundational skills. For example, numerous studies have projected pronounced reading losses among U.S. kindergarteners due to school closures.²⁷ Researchers from Illuminate Education recommend that schools “[s]pend more time focused on reading and math in K-3 classrooms. The risk of learning loss is greater in these grades, so it is even more critical to spend time helping students make up for the lack of instruction in these foundational

subjects.”²⁸ Additional research has concluded that “there may be a need to think about providing more resources at early grades to help students catch up in their learning or to prioritize what skills are taught in these grades.”²⁹

Economic Costs of Learning Loss

Learning loss will bring with it long-term economic costs, even if schools return to full in-person instruction immediately. McKinsey estimated that, assuming in-school instruction resumes in January 2021, the average K-12 U.S. student could lose \$61,000 to \$82,000 (constant 2020 dollars) in lifetime earnings.³⁰ For the aggregate K-12 cohort, this amounts to an estimated \$110 billion in annual earnings lost—\$98.8 billion from learning loss, and \$11.2 billion from an increase in high-school dropouts. Of course, any delays past January 2021 would increase losses further.

The Penn Wharton Budget Model similarly estimated that, as of October 1, 2020, school closures had already cost students in grades 1-12 between \$43,000 and \$57,000 each.³¹ Each additional month of school closures is estimated to cost current students \$12,000 to \$15,000 in future earnings.³²

As with learning loss, young children will likely face the greatest economic harm from today’s school closures. One study estimates that children aged six—those just starting primary school when the pandemic struck—will suffer earning losses 60 percent higher than children aged 14.³³ All told, the Brookings Institution estimated that the aggregate cost of four months of lost education in the United States is \$2.5 trillion, or 12.7 percent of annual GDP.³⁴

THE EFFECT OF SCHOOL CLOSURES ON AMERICANS’ MENTAL HEALTH

In addition to children’s developmental and academic losses, American families are experiencing declines in their mental health. Children are suffering from a loss of routine, isolation from their peers, and the stress of remote learning. Parents, especially those with young children, face the added stress of overseeing schooling in addition to their other responsibilities.

Harm to Children’s Mental Health

Disruptions to normal school activity have caused many children to struggle with their mental health. In May, nearly 30 percent of parents surveyed by Gallup reported that their child was experiencing emotional or mental harm due to social distancing and school closures. Nearly half believed that their child’s separation from classmates and teachers posed a major challenge, and of those, only 12 percent thought that their child could continue with remote learning indefinitely.³⁵

Parental concerns grew considerably as schools remained closed. A Pew Research Center survey from October revealed that 59 percent of parents with children in grades K-12 were concerned about their child's emotional well-being, and that 60 percent were concerned about their children not maintaining social connections and friendships. Parents were significantly more concerned about each of these issues if their child was only receiving online instruction versus in-person instruction.³⁶

In addition to causing feelings of isolation, school closures are contributing to families' stress more generally. When higher levels of stress translate to a stressful home life, they further harm children's mental health: research shows that high-stress environments can exacerbate pre-existing psychological issues in children, such as behavioral problems and psychological disorders.³⁷ Indeed, in a national survey of parents, nearly one-fifth reported that their child's behavioral health had worsened from March to June after schools had closed – findings that were similar across racial and economic groups.³⁸ Reports did differ, however, depending on the age of their child. Parents with children ages 6 to 12 were more likely to report worsening behavioral health than parents with children older than 13.³⁹

Increasing stress in family life may also worsen some children's treatment at home. Parents' stress levels are undoubtedly rising as they are being asked to be work, teach, and care for their children at the same time, especially while some children exhibit greater behavioral problems. These stressors may lead to parental burnout, defined as "a prolonged response to chronic and overwhelming parental stress."⁴⁰ Research shows that parents with higher levels of parental burnout engage in greater levels of child abuse and neglect.⁴¹ At the same time, school closures are separating children from teachers, school psychologists, nurses, and other staff trained to identify and report child mistreatment. One analysis of child abuse hotline allegations in Florida found that reported allegations of abuse, neglect or abandonment in March and April were 27 percent lower than expected, and the reduction was driven by decreased calls from school staff.⁴²

The potential for mistreatment is increasing at a time when mental health services are less accessible to children. A nationally representative survey conducted in 2014 found that 13 percent of children aged 12 to 17 received mental health services from a school setting.⁴³ These services can include talking to counselors or participating in programs for students with emotional or behavioral problems, and younger adolescents were more likely than older adolescents to receive these services. An analysis of the same survey from 2012 to 2015 found that, of the adolescents that received any mental health services, 35 percent received their services exclusively from school settings and 57 percent received at least some services in a school setting.⁴⁴

Finally, school shutdowns have been particularly difficult for students with learning disabilities. Schools are required to provide these students with specialized services to help them succeed, yet these services are harder to deliver while schools are closed. For example, some students may require one-

on-one assistance in the classroom from a personal aid, and others require modified equipment or a different method of instruction. According to a survey conducted in May by ParentsTogether, 80 percent of parents with children in special education said that their children were not receiving all of the specialized services they require, as mandated by law.⁴⁵ Additionally, parents of special needs children were twice as likely as other parents to say that their child was doing little to no remote learning (35 percent vs. 17 percent).⁴⁶

Harm to Parents' Mental Health

In 2019, there were over 50 million working parents with children under 18 years old, 42 percent of which had children under the age of six.⁴⁷ As children have suffered from the disruption of routine, these parents have also struggled with taking on the new responsibility of schooling their children. The added stress is even greater for the parents of younger children, who require more attention throughout the day.

In an April survey of parents with children ages 12 and younger, 45 percent did not feel prepared to educate their children at home, and 50 percent felt overwhelmed by their new responsibilities, citing behavioral problems and the difficulty of balancing their work with their children's schooling.⁴⁸ Similarly, in a Pew Research Center survey conducted in May, 72 percent of working parents said that balancing a job with helping kids with school was a challenge, and over 40 percent reported it was a major challenge.⁴⁹

Not surprisingly, this added stress has worsened parents' well-being. A national survey from June 2020 revealed that over one quarter of parents experienced declining mental health since March, and parents of young children saw even more widespread declines.⁵⁰ Furthermore, using survey data collected from February to April, researchers have estimated that the increased caregiving burdens caused by school closures are significantly associated with negative parental mood, even after controlling for the mood effects of COVID-related job and income loss.⁵¹ More recently, the U.S. Census Household Pulse Survey from early December revealed that adults in households with children under 18 report higher rates of anxiety and depression than adults in households with no children.⁵²

Economic Implications

Productivity is a key component to economic growth. By harming working parents' mental health, school closures have negative ramifications for the labor force and the economy.

In 2019, nearly one third of workers in the United States had children under the age of 18.⁵³ Therefore, school closures threaten to reduce a large proportion of the labor market's productivity. For instance, one study of dual-income households found that, during the COVID-19 lockdowns, mothers reported lower work

productivity and job satisfaction than fathers. Prior to the lockdowns, however, there were no differences between reported productivity and satisfaction, suggesting that mothers took on a greater role in childcare once schools closed.⁵⁴ Additional research found that mothers of school age children in states with early closures worked longer hours than mothers in states with later closures, and this indicates a decrease in work productivity among mothers that work from home.⁵⁵ As long as school closures require working parents to be responsible for overseeing their children's schooling, it seems safe to assume U.S. productivity will suffer.

HOW REOPENING SCHOOLS AFFECTS THE SPREAD OF COVID-19

Closing schools harms children and parents—developmentally, academically, and psychologically. Yet, teachers, parents, and policymakers have worried since the beginning of the pandemic that reopening schools will increase the spread of COVID-19.

It is important that decision makers balance the benefits of school reopening against associated health risks; however, evidence on the relationship between school reopening and health risks is more mixed than commonly recognized. One interesting area of consensus is that younger children are at much lower risk of contracting and transmitting the virus than older children.

Health Risks for the Overall Population

Reopening schools brings with it the fear that in-person contact will increase the spread of COVID-19 and threaten at-risk teachers and relatives. In line with that concern, one analysis estimated that 42 percent of school employees are high-risk due to confounding factors like obesity and high blood pressure, and additionally that 59 percent of school-aged children live with at least one adult who meets the definition of increased risk.⁵⁶ Given this information, it is important to determine to what extent school reopenings might increase COVID-19 transmission.

Many researchers have attempted to quantify how school reopenings influence infection rates, both in domestically and around the world. In the United States, preliminary evidence suggests that school reopenings do not significantly contribute to the spread of COVID-19. For example, researchers from the Center for Disease Control and Prevention (CDC) recently concluded there is little evidence that school attendance increases community transmission.⁵⁷ They cite studies of schools offering in-person instruction in North Carolina, Wisconsin, and Mississippi, in each case finding that COVID-19 transmission is rare between students and faculty and amongst students themselves. Because of the low rates of infection at schools, the researchers argue that reducing community-based

transmission is more important to slow the spread of COVID-19 than reducing school-based transmission.

Additional evidence from two new studies seem to echo these findings, but with caveats for schools in communities with high infection rates. The first, an examination of Michigan and Washington schools in fall 2020, used multivariate regressions to find that interventions like mandatory mask wearing effectively eliminate the relationship between in-person instruction and COVID case counts.⁵⁸ Yet, the researchers caution that in-person schooling is predicted to increase community spread in areas with very high pre-existing infection rates. The second study was a nationwide analysis of schools in nearly every county in the United States from January to October.⁵⁹ Using difference-in-difference analysis, the researchers found that in-person instruction had no effect on infection rates in counties with fewer than 36 to 44 new COVID-19 hospitalizations per 100,000 people per week. Roughly 75 percent of the schools examined fell beneath this threshold.

Using data from 47 states, economist Emily Oster found similar results: in schools that reopened, infection rates were only equal to 0.13 percent among school students and 0.24 percent among staff. These rates equate to “about 1.3 infections over two weeks in a school of 1,000 kids, or 2.2 infections over two weeks in a group of 1,000 staff,”⁶⁰ and they suggest that school reopenings do not pose a significant threat for COVID-19 spread. Oster later analyzed October and November infection rates in New York and found that 80 percent of schools offering in-person instruction reported zero COVID-19 cases.⁶¹ She noted that “of those schools that did detect covid, nearly 90 percent had only one or two cases across all students and staff.”⁶²

The international evidence is less clear. For instance, one study analyzed interventions in 79 countries and found that school closures were among the most effective at reducing infection rates.⁶³ Another study came to a similar conclusion after evaluating interventions in 131 countries, finding that school closures had the largest impact on reducing infection rates.⁶⁴ It is worth noting, however, that the researchers were unable to evaluate the effectiveness of school safety protocols – such as desk dividers, physical distancing, and enhanced hygiene – which scientists argue reduce the spread of COVID-19.

Other international studies have been unable to draw causal relationships between school reopenings and infection rates. For example, one study found that closing schools in Norway and Denmark led to a decline in infections, yet reopening schools did not lead to a corresponding increase due to low rates of community transmission.⁶⁵ Similarly, in Germany, school reopenings increased transmission among students, but not school staff.⁶⁶ In Spain, reopening schools led to cases rising in one region but falling in another.⁶⁷ And after Sweden chose to keep its schools open and Finland chose to close its schools, students under the age of 20 in both countries experienced nearly identical infection rates.⁶⁸

Perhaps the non-profit group Insights for Education summarizes the research best. After studying the experience of 191 countries, Insights for Education concluded that “no consistency can be observed between school status and infection levels.”⁶⁹ Yet, at least domestically, the evidence seems to suggest that school reopenings are safe for areas with lower rates of community transmission.

Health Risks across Age Groups

Though the evidence on the relationship between school reopenings and overall infection rates is somewhat mixed, the research is united on one point: the risk of transmission increases with age.

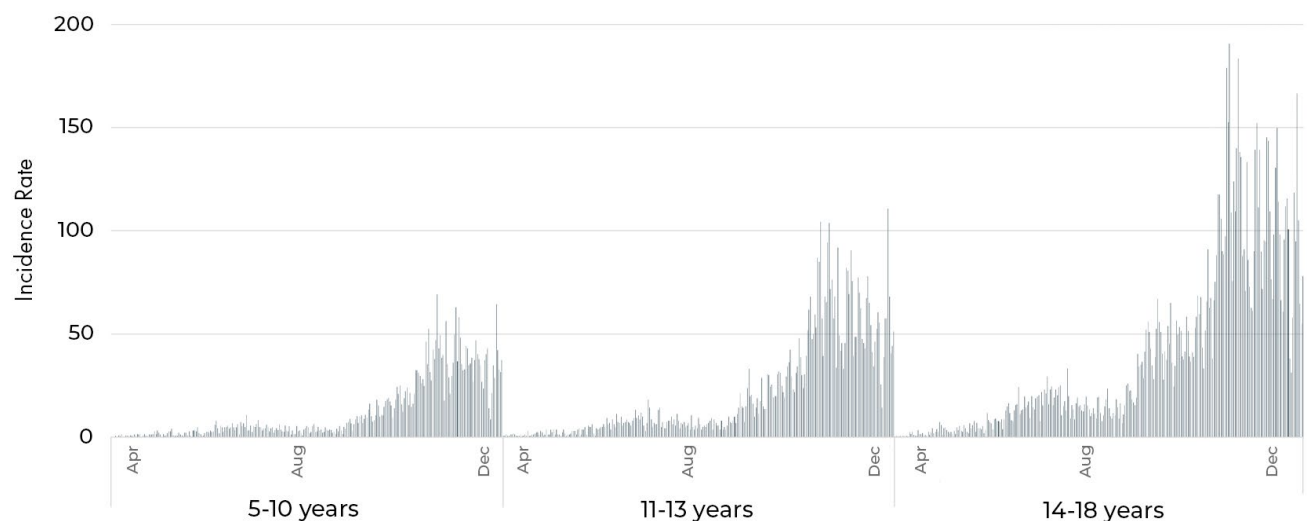
First, a review of worldwide outbreaks by researchers at the University of Vermont found that young children are hardly ever the primary sources of infection. The authors posit that, because children are more likely to be asymptomatic than adults, they are less likely to cough or otherwise release infectious particles that spread the virus.⁷⁰ Similarly, a study from South Korea showed that children under age 10 transmit the virus at one quarter of the rate of children ages 10 to 19.⁷¹

Other research confirms that infection rates are consistently lower in younger populations. One study of German schools found that children ages 6 to 10 were less likely to have COVID-19 than adults and older children at the same schools.⁷² Another study of Italy, Japan, and four other nations found that individuals under age 20 were only half as susceptible to infection as adults over the age of 20, and that nearly 80 percent of infected students did not show symptoms.⁷³

The same patterns are observable in the United States. In New York, high school students and staff have similar infection rates to the overall population, yet the rates for elementary and middle school students are consistently lower.⁷⁴

These trends can be visualized using data from Utah, which keeps detailed records of school-associated COVID-19 cases. Figure 2 displays Utah infection rates by age from April to December, and it shows that high school-aged children are much more likely than elementary school-aged children to be infected over the entire time period. According to data from December, the daily infection rate was 177 percent higher among high school-aged children than elementary school-aged children, and 70 percent higher among high school-aged children than middle school-aged children.⁷⁵

Figure 2. School-Age Group Specific Case Rates per 100,000 Population in Utah, by Report Date



Source: Utah Department of Health COVID-19 Surveillance

This evidence confirms that younger children face only modest health risks from returning to school, and this suggests that their return to school should be prioritized. Across all ages, a flexible approach to education is critical; this approach should include an option to return to school or utilize other educational options based on students' and families' educational needs, risk factors, and risk tolerance.

THE RESPONSE FROM PARENTS AND COMMUNITIES

While teachers and policymakers consider whether, when, and how to reopen schools, parents face the more personal question of how to continue their children's education in a way that fits their family's needs, priorities, and risk tolerance. Many parents appear to be treating the pandemic as an opportunity to reevaluate their children's educational options. For example, in October 2020, 64 percent of parents said that schools should focus on "rethinking how we educate students, coming up with new ways to teach children moving forward as a result of the COVID-19 crisis," rather than prioritizing a return to pre-pandemic conditions.⁷⁶ Similarly, a July survey found that 69 percent of parents believed that schools should provide multiple learning options in fall 2020.⁷⁷

Parents' interest in new educational approaches is apparent in their willingness to experiment with new ways of meeting their children's educational needs. For instance, homeschooling has seen a dramatic increase. One recent survey reported an increase in homeschooling from 5 percent in fall 2019 to 10 percent in fall 2020,⁷⁸ while another reported an increase from 7 to 16 percent.⁷⁹ As the Social Capital Project has documented, results from the nationwide American Family Survey conducted this summer show that roughly 40 percent of parents say the pandemic has made them more likely to consider homeschooling in the future.⁸⁰ Overall,

67 percent of parents have a more favorable opinion of homeschooling since the pandemic began in March, compared to 19 percent whose opinion is less favorable.⁸¹

Although parents' views on charter schools are roughly the same as in March,⁸² there are some indications that parents have been especially satisfied with charter schools this year. For example, 45 percent of charter school parents reported in May being "very satisfied" with their school's response to COVID-19, versus 26 percent of public school parents. Compared to parents of public school students, parents of charter school students also report that their students' schools devote a greater share of remote instruction to learning new material and they report more one-on-one teacher-student interaction.⁸³

Perhaps the most notable, recent educational innovation has been the rise of "learning pods"—small groups of students that function as schools in miniature. Students generally meet in person at one family's house or elsewhere and receive instruction from a parent or outside tutor. A recent survey of Americans shows widespread support for policies that would reduce the regulatory obstacles to parents creating pods, and this suggests further public support for a more pluralistic approach to education. For example, 50 percent of respondents agreed that policymakers should consider aligning pods with current laws for homeschooling and private schools so that pod families do not face heavier regulatory burdens, while only 15 percent disagreed. Similarly, 41 percent of respondents agreed that states should avoid putting in place new pupil-staff ratios for pods and further supported permanent waivers to childcare regulations for pods, compared to just 20 percent who disagreed.⁸⁴

CONCLUSION

As policymakers contemplate reopening schools, it is important that they balance the often-ignored costs of continued school closures with the critical health risks of school reopenings. This paper aims to aid decision-makers by surveying existing research on each of these topics.

First, research confirms that school closures constitute a difficult disruption to students' development. The harm is especially concentrated among very young children, whose separation from teachers and classroom tools may hinder their progress. Furthermore, these children are the most at risk of developing cognitive issues from excessive screen time, a feature of remote learning.

Disruptions to in-person education also harm older children academically. Students with learning disabilities may be disproportionately harmed by not having access to the specialized services they depend on at school. Because of differences in home environments and technology access and use, continued remote learning may also exacerbate current gaps in educational achievement across the socioeconomic spectrum. These COVID-19 learning losses may reduce all students' expected future earnings, however children at the beginning of their school career will likely suffer to the greatest extent.

Second, school closures significantly increase stress for American families with school-aged children. Surveys show that parents are worried about their children's emotional wellbeing while they are isolated from their teachers and friends, and that their children are experiencing greater behavioral issues while they engage in remote learning. Furthermore, separating children from school also separates them from many mental health services, which can be particularly damaging during this time of increased stress and isolation. Reported harm is even worse among younger children, who are experiencing greater issues with their behavioral health and normally take greater advantage of school-provided mental health services.

Parents are also experiencing greater stress as they are confronted with the new responsibility of schooling their children at home. This stress is bleeding into their work life, requiring them to work longer hours and reducing their work productivity. Parents with young children are especially impacted as they must devote more time and attention to caring for their children throughout the day.

All of this evidence suggests that young children should be prioritized for going back to school. Although the research is quite conclusive regarding the harms of school closures, the obvious concern about reopening schools is that it would exacerbate the spread of COVID-19. In this area, the connection between school reopenings and COVID-19 infection rates is less than clear. What the research does agree on is that young children are at lower risk of getting and transmitting COVID-19 than older children and adults.

As important as the immediate matter of school reopening is, however, the pandemic also provides an opportunity to think more broadly about how to improve the American education system and better enable parents to select the education that best fits their preferences and their children's needs. As the Social Capital Project's paper "[Multiple Choice](#)" argued, policymakers should promote "educational pluralism," which "recognizes the value of having distinctive school cultures and couples choice with accountability."⁸⁵ Educational pluralism recognizes that the challenges and competing priorities of reopening schools cannot be solved by a one-size-fits-all approach.

The pandemic in particular calls for a response that recognizes the variation in parental and student needs. Indeed, the range of efforts from parents to continue their children's education today suggests that many are already well aware of the benefits of flexibility to adapt each child's education to his or her particular needs. Though the pandemic will pass, the need for policymakers and educators to accommodate those needs will remain. As policymakers weigh the costs and benefits of reopening schools with the appropriate safety measures, they should recognize the growing popularity of alternative schooling methods and work to improve parents' ability to organize educational approaches that best meet the needs of students and parents alike.

Jacqueline Varas
Senior Economist

Vijay Menon
Policy Advisor

Robert Bellafiore
Former Policy Advisor

ENDNOTES

1. MCH Strategic Data, "COVID-19 IMPACT: School District Status – Updates for Spring 2021," Accessed January 27, 2021, <https://www.mchdata.com/covid19/schoolclosings>.
2. Ibid.
3. Kittie Butcher and Janet Pletcher, "Cognitive Development and Sensory Play," Michigan State University Extension, December 15, 2016, https://www.canr.msu.edu/news/cognitive_development_and_sensory_play.
4. Nancy Carlsson-Paige, GERALYN Bywater McLaughlin, and Joan Wolfsheimer Almon, "Reading Instruction in Kindergarten: Little to Gain and Much to Lose," Alliance for Childhood, January 2015, p. 4-5, https://web.archive.org/web/20150810193843/https://allianceforchildhood.org/sites/allianceforchildhood.org/files/file/Reading_Instruction_in_Kindergarten.pdf.
5. Juliana Menasce Horowitz and Ruth Igielnik, "Most Parents of K-12 Students Learning Online Worry about Them Falling Behind," Pew Research Center, October, 29, 2020. <https://www.pewsocialtrends.org/2020/10/29/most-parents-of-k-12-students-learning-online-worry-about-them-falling-behind/>
6. Brooke Auxier, Monica Anderson, Andrew Perrin, and Erica Turner, "Parenting Children in the Age of Screens," Pew Research Center, July 28, 2020, [pewresearch.org/internet/2020/07/28/parenting-children-in-the-age-of-screens/](https://www.pewresearch.org/internet/2020/07/28/parenting-children-in-the-age-of-screens/).
7. Victoria Rideout and Michael B. Robb, "The common sense census: Media use by kids age zero to eight," *Common Sense Media*, 2020. https://www.common sense media.org/sites/default/files/uploads/research/2020_zero_to_eight_census_final_web.pdf
8. Nielsen, "Kids and Teens Drive Daytime TV Viewing and Streaming Increases during COVID-19," April 30, 2020. <https://www.nielsen.com/us/en/insights/article/2020/kids-and-teens-drive-daytime-tv-viewing-and-streaming-increases-during-covid-19/>
9. ParentsTogether Foundation, "Survey Shows Parents Alarmed as Kids' Screen Time Skyrockets During COVID-19 Crisis," *ParentsTogether*, April 23, 2020, <https://parents-together.org/survey-shows-parents-alarmed-as-kids-screen-time-skyrockets-during-covid-19-crisis/>.
10. Note that watching high-quality educational programming may improve attention. Amy Nathanson et al., "The Relation between Television Exposure and Executive Function among Preschoolers," *Developmental Psychology* 50, no. 5 (May 2014): 1497-1506. <https://pubmed.ncbi.nlm.nih.gov/24447117/>

11. Mark S. Tremblay et al., "Systematic Review of Sedentary Behavior and Health Indicators in School-Aged Children and Youth," *International Journal of Behavioral Nutrition and Physical Activity* 8 (Sept. 2011): 98. <https://pubmed.ncbi.nlm.nih.gov/21936895/>.
12. Robert J. Hancox, Barry J. Milne, and Richie Poulton, "Association between Child and Adolescent Television Viewing and Adult Health: A Longitudinal Birth Cohort Study," *The Lancet* 364, no. 9430 (July 2004): 257-62. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(04\)16675-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(04)16675-0/fulltext); and Robert J. Hancox, Barry J. Milne, and Richie Poulton, "Association of Television Viewing during Childhood with Poor Educational Achievement," *Archives of Pediatrics and Adolescent Medicine* 159, no. 7 (July 2005): 614-8. <https://jamanetwork.com/article.aspx?doi=10.1001/archpedi.159.7.614>.
13. Shawn Radcliffe, "Is Screen Time Altering the Brains of Children?," Healthline Parenthood, December 19, 2018, <https://www.healthline.com/health-news/how-does-screen-time-affect-kids-brains>.
14. David M. Quinn and Morgan Polikoff, "Summer Learning Loss: What is it, and What Can We Do about It?" Brookings Institution, September 14, 2017, <https://www.brookings.edu/research/summer-learning-loss-what-is-it-and-what-can-we-do-about-it/>.
15. "Estimates of Learning Loss in the 2019-2020 School Year," Center for Research on Education Outcomes, Stanford University, October 2020, https://credo.stanford.edu/sites/g/files/sbiybj6481/f/short_brief_on_learning_loss_final_v.3.pdf; Megan Kuhfeld et al., "Projecting the Potential Impacts of COVID-19 School Closures on Academic Achievement," Annenberg Institute, Brown University, EdWorkingPaper: 20-226, May 2020, p. 23, <https://www.edworkingpapers.com/sites/default/files/ai20-226-v2.pdf>.
16. Renaissance Learning, "How Kids Are Performing: Tracking the Impact of COVID-19 on Reading and Mathematics Achievement," Fall 2020, <https://www.renaissance.com/how-kids-are-performing/>.
17. Megan Kuhfeld et al., "Learning during COVID-19: Initial Findings on Students' Reading and Math Achievement and Growth," NWEA, November 2020, <https://www.nwea.org/content/uploads/2020/11/Collaborative-brief-Learning-during-COVID-19.NOV2020.pdf>.
18. Melissa Diliberti and Julia H. Kaufman, "Will This School Year Be Another Casualty of the Pandemic? Key Findings from the American Educator Panels Fall 2020 COVID-19 Surveys," RAND Corporation, 2020, https://www.rand.org/pubs/research_reports/RRA168-4.html.
19. Rachel Sheffield, "Marital Health, Parental Well-being, and Family Bonds during the Pandemic: Findings from the 2020 American Family Survey," U.S. Congress, Joint Economic Committee, Chairman's Staff of the Joint Economic Committee, December 14, 2020, <https://www.jec.senate.gov/public/index.cfm/republicans/analysis?id=F10EF585-FF84-4587-A445-208976510C79>.

20. Nat Malkus, "School Districts' Remote-Learning Plans May Widen Student Achievement Gap," EducationNext, June 16, 2020, <https://www.educationnext.org/school-districts-remote-learning-plans-may-widen-student-achievement-gap-only-20-percent-meet-standards/>.
21. Emma Dorn, Bryan Hancock, Jimmy Sarakatsannis, and Ellen Viruleg, "COVID-19 and Student Learning in the United States: The Hurt Could Last a Lifetime," McKinsey & Company, June 1, 2020, <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime>.
22. Ibid.
23. Melissa Diliberti and Julia H. Kaufman, "Will This School Year Be Another Casualty of the Pandemic? Key Findings from the American Educator Panels Fall 2020 COVID-19 Surveys," 2020, https://www.rand.org/pubs/research_reports/RRA168-4.html.
24. Chart created by Patrick T. Brown, former Joint Economic Committee Senior Policy Advisor.
25. Opportunity Insights Economic Tracker, <https://tracktherecovery.org/>.
26. Ibid.
27. For instance, see Xue Bao, Hang Qu, Ruixiong Zhang, and Tiffany P. Hogan, "Modeling Reading Ability Gain in Kindergarten Children during COVID-19 School Closures," *International Journal of Environmental Research and Public Health* 17, no. 17 (Sept. 2020): 6371. <https://www.mdpi.com/1660-4601/17/17/6371>
28. John Bielinski, Rachel Brown, and Kyle Wagner, "COVID Slide: Research on Learning Loss & Recommendations to Close the Gap," Illuminate Education, August 2020, p. 17, <https://f.hubspotusercontent20.net/hubfs/5196620/covid-19-slide-whitepaper.pdf>.
29. Adam E. Wyse et al., "The Potential Impact of COVID-19 on Student Learning and How Schools Can Respond," *Educational Measurement: Issues and Practice* 39, no. 3 (2020): 60-64. <https://onlinelibrary.wiley.com/doi/10.1111/emip.12357>.
30. Dorn, Hancock, Sarakatsannis, and Viruleg, "COVID-19 and Student Learning in the United States."
31. Penn Wharton Budget Model, "COVID: Trade-offs in School Reopening," October 12, 2020, <https://budgetmodel.wharton.upenn.edu/issues/2020/10/12/covid-trade-offs-in-school-re-opening>.
32. Ibid.
33. Nicola Fuchs-Schündeln, Dirk Krueger, Alexander Ludwig, and Irina Popova,

- "The Long-Term Distributional and Welfare Effects of Covid-19 School Closures," *NBER Working Paper* w27773 (2020), <https://www.nber.org/papers/w27773>.
34. George Psacharopoulos, Harry Patrinos, Victoria Collis, and Emiliana Vegas, "The COVID-19 Cost of School Closures," Brookings Institution, April 29, 2020, <https://www.brookings.edu/blog/education-plus-development/2020/04/29/the-covid-19-cost-of-school-closures/#cancel>.
35. Valerie J. Calderon, "U.S. Parents Say COVID-19 Harming Child's Mental Health," Gallup, June 16, 2020, <https://news.gallup.com/poll/312605/parents-say-covid-harming-child-mental-health.aspx>.
36. Juliana Menasce Horowitz and Ruth Igielnik, "Most Parents of K-12 Students Learning Online Worry about Them Falling Behind," Pew Research Center, October 29, 2020, <https://www.pewsocialtrends.org/2020/10/29/most-parents-of-k-12-students-learning-online-worry-about-them-falling-behind/>.
37. Gloria Moroni, Cheti Nicoletti, and Emma Tominey, "Children's Socio-Emotional Skills and the Home Environment during the COVID-19 Crisis," Centre for Economic and Policy Research, April 9, 2020, <https://voxeu.org/article/children-s-socio-emotional-skills-and-home-environment-during-covid-19-crisis>.
38. Stephen W. Patrick et al., "Well-Being of Parents and Children During the COVID-19 Pandemic: A National Survey," *Pediatrics* 146 (October 2020), <https://pediatrics.aappublications.org/content/146/4/e2020016824>.
39. Ibid.
40. Anette K. Griffith, "Parental Burnout and Child Maltreatment During the COVID-19 Pandemic," *Journal of Family Violence*, June 23, 2020, <https://link.springer.com/article/10.1007/s10896-020-00172-2>.
41. Ibid.
42. E. Jason Baron, Ezra G. Goldstein, and Cullen T. Wallace, "Suffering in Silence: How COVID-19 School Closures Inhibit the Reporting of Child Maltreatment," *Journal of Public Economics* 190, no. 104258 (October 2020), <https://www.sciencedirect.com/science/article/pii/S0047272720301225>.
43. Ezra Golberstein, Hefei Wen, and Benjamin F. Miller, "Coronavirus Disease 2019 (COVID-19) and Mental Health for Children and Adolescents," *Jama Pediatrics* 173, no. 9 (April 2020): 819-820, <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2764730>.
44. Ibid.
45. Anya Kamenetz, "Survey Shows Big Remote Learning Gaps For Low-Income And Special Needs Children," *NPR*, May 27, 2020, <https://www.npr.org/>

[sections/coronavirus-live-updates/2020/05/27/862705225/survey-shows-big-remote-learning-gaps-for-low-income-and-special-needs-children.](#)

46. Ibid.
47. "Employment Characteristics of Families—2019," Bureau of Labor Statistics, April 20, 2020, <https://www.bls.gov/news.release/pdf/famee.pdf>.
48. Shawna J. Lee, Kaitlin P. Ward, and Olivia D. Chang, "Parents' Perceptions of the Shift to Home-Based Education During the COVID-19 Pandemic," Parenting In Context Research Lab, September 5, 2020, https://www.parentingincontext.org/uploads/8/1/3/1/81318622/research_brief_parents%E2%80%99_perceptions_of_the_shift_to_home-based_education_during_the_covid-19_pandemic_final.pdf.
49. Jeffrey M. Jones, "Social Factors Most Challenging in COVID-19 Distance Learning," Gallup, June 12, 2020, <https://news.gallup.com/poll/312566/social-factors-challenging-covid-distance-learning.aspx>.
50. Stephen W. Patrick et al., "Well-Being of Parents and Children During the COVID-19 Pandemic: A National Survey," *Pediatrics* 146 (October 2020), <https://pediatrics.aappublications.org/content/146/4/e2020016824>.
51. Anna Gassman-Pines, Elizabeth Oltmans Ananat, and John Fitz-Henley, "COVID-19 and Parent-Child Psychological Well-being," *Pediatrics* 146 (October 2020), <https://pediatrics.aappublications.org/content/146/4/e2020007294>.
52. "Week 20 Household Pulse Survey: November 25 – December 7," United States Census Bureau, December 16, 2020, <https://www.census.gov/data/tables/2020/demo/hhp/hhp20.html>.
53. "Employment Characteristics of Families—2019," Bureau of Labor Statistics, April 21, 2020, <https://www.bls.gov/news.release/pdf/famee.pdf>; "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, January 22, 2020, <https://www.bls.gov/cps/cpsaat03.htm>; author's calculations.
54. Zhiyu Feng and Krishna Savani, "Covid-19 Created a Gender Gap in Perceived Work Productivity and Job Satisfaction: Implications for Dual-career Parents Working from Home," *Gender in Management*, September 7, 2020, <https://www.emerald.com/insight/content/doi/10.1108/GM-07-2020-0202/full/html>.
55. Misty L. Heggeness, "Estimating the Immediate Impact of the COVID-19 Shock on Parental Attachment to the Labor Market and the Double Blind of Mothers," U.S. Census Bureau, November 2020, <https://www2.census.gov/ces/wp/2020/CES-WP-20-22R.pdf>.

56. Thomas M. Selden, Terceira A. Berdahl, and Zhengyi Fang, "The Risk of Severe COVID-19 within Households of School Employees and School-Age Children," *Health Affairs* 39, no. 11 (September 2020), <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.01536>.
57. Margaret A. Honein, Lisa Barrios, and John T. Brooks, "Data and Policy to Guide Opening Schools Safely to Limit the Spread of SARS-CoV-2 Infection," *JAMA*, January 26, 2021, <https://jamanetwork.com/journals/jama/fullarticle/2775875>.
58. Dan Goldhaber, et al., "To What Extent Does In-Person Schooling Contribute to the Spread of COVID-19: Evidence from Michigan and Washington," National Center for Analysis of Longitudinal Data in Education Research, December 2020, https://caldercenter.org/sites/default/files/WP%20247-1220_updated_typo.pdf.
59. Douglas N. Hariz, Engy Ziedan, and Susan Hassig, "The Effects of School Reopenings on COVID-19 Hospitalizations," National Center for Research and Education Access and Choice, January 4, 2021, <https://www.reachcentered.org/publications/the-effects-of-school-reopenings-on-covid-19-hospitalizations>.
60. Emily Oster, "Schools Aren't Super-Spreaders," *The Atlantic*, October 9, 2020, <https://www.theatlantic.com/ideas/archive/2020/10/schools-arent-superspreaders/616669/>.
61. Emily Oster, "Schools Are Not Spreading Covid-19. This New Data Makes the Case," *The Washington Post*, November 20, 2020, <https://www.washingtonpost.com/opinions/2020/11/20/covid-19-schools-data-reopening-safety/?arc404=true>.
62. Ibid.
63. Nils Haug, et al., "Ranking the Effectiveness of Worldwide COVID-19 Government Interventions," *Nature Human Behaviour* 4 (November 2020): 1303-1312, <https://www.nature.com/articles/s41562-020-01009-0>.
64. You Li, et al., "The temporal association of introducing and lifting non-pharmaceutical interventions with the time-varying reproduction number (R) of Sars-CoV-2: a modelling study across 131 countries," Usher Institute, University of Edinburgh, UK, October 22, 2020, <https://www.thelancet.com/action/showPdf?pii=S1473-3099%2820%2930785-4>.
65. Brandon L. Guthrie, et al., "Summary of School Re-Opening Models and Implementation Approaches during the COVID-19 Pandemic," University of Washington Department of Global Health, July 6, 2020, <https://globalhealth.washington.edu/sites/default/files/COVID-19%20Schools%20Summary%20%28updated%29.pdf>.

66. Ibid.
67. Anya Kamenetz, "Are The Risks of Reopening Schools Exaggerated?" *NPR*, October 21, 2020, <https://www.npr.org/2020/10/21/925794511/were-the-risks-of-reopening-schools-exaggerated>.
68. Avik Roy, "Why It's (Mostly) Safe to Reopen the Schools," *Wall Street Journal*, August 7, 2020, <https://www.wsj.com/articles/why-its-mostly-safe-to-reopen-the-schools-11596812466>.
69. Insights for Education, "COVID-19 and Schools: What We Can Learn from Six Months of Closures and Reopening," October 1, 2020, https://blobby.wsimg.com/go/104fc727-3bad-4ff5-944f-c281d3ceda7f/20201001_Covid19%20and%20Schools%20Six%20Month%20Report.pdf.
70. Benjamin Lee and William V. Raszka, "COVID-19 Transmission and Children: The Child Is Not to Blame," *Pediatrics* 146, no. 2 (August 2020), <https://pediatrics.aappublications.org/content/146/2/e2020004879#ref-13>.
71. Avik Roy, "Why It's (Mostly) Safe to Reopen the Schools."
72. Dyani Lewis, "Why Schools Probably Aren't COVID Hotspots," *nature*, October 29, 2020, <https://www.nature.com/articles/d41586-020-02973-3>.
73. Nicholas G. Davies et al., "Age-Dependent Effects in the Transmission and Control of COVID-19 Epidemics," *Nature Medicine* 26 (June 2020): 1205-1211, <https://www.nature.com/articles/s41591-020-0962-9>.
74. Emily Oster, "Schools Are Not Spreading Covid-19."
75. Utah Department of Health, "School-Associated Cases by School District," Accessed December 14, 2020, <https://coronavirus.utah.gov/case-counts/>.
76. Beth Hawkins, "New Poll Finds Parents Want Better Distance Learning Now, Online Options Even after COVID, More Family Engagement," *The 74*, <https://www.the74million.org/article/new-poll-finds-parents-want-better-distance-learning-now-online-options-even-after-covid-more-family-engagement/>.
77. Paul DiPerna, "EdChoice Public Opinion Tracker: Top Takeaways July 2020," EdChoice, August 5, 2020, <https://www.edchoice.org/engage/edchoice-public-opinion-tracker-top-takeaways-july-2020/>.
78. Gallup, <https://news.gallup.com/poll/1612/education.aspx>.
79. John Kristof and Paul DiPerna, "EdChoice Public Opinion Tracker: Top Takeaways October 2020," EdChoice, November 10, 2020, <https://www.edchoice.org/engage/edchoice-public-opinion-tracker-top-takeaways-october-2020/>.
80. Rachel Sheffield, "Marital Health, Parental Well-being, and Family Bonds during the Pandemic: Findings from the 2020 American Family Survey."

81. Ibid.
82. Ibid.
83. Michael B. Henderson, David Houston, Paul E. Peterson, Martin R. West, "What American Families Experienced When Covid-19 Closed Their Schools," EducationNext, July 8, 2020, <https://www.educationnext.org/what-american-families-experienced-when-covid-19-closed-their-schools/>.
84. Jonathan Butcher, "Protecting Learning Pods: A 50-State Guide to Regulations Threatening the Latest Education Innovation," State Policy Network, November 2, 2020, <https://spn.org/blog/protecting-learning-pods/>.
85. Patrick Brown, "Multiple Choice: Increasing Pluralism in the American Education System," U.S. Congress, Joint Economic Committee, Chairman's Staff of the Joint Economic Committee, December 10, 2019, <https://www.jec.senate.gov/public/index.cfm/republicans/analysis?ID=BFFED882-7A9E-4462-AC0B-69ED4E67D663>.
-

social capital project

A project of the Joint Economic Committee – Republicans

jec.senate.gov | G-01 Dirksen Senate Office Building Washington, DC 20510 | (202) 224-5171