

COVID-19 and the impact on education

Is there concern that students will not return to school facilities in the fall?

It is our belief that education inside of facilities is a must. Parents and children need brick and mortar facilities not only education, but also for face-to-face social interaction, security, discipline, and in many cases, for a reliable meal. Educating at home has already proven to be a difficult task for parents in an environment where many parents are sheltering in place and working from home to help prevent the spread of COVID. As dual-income and single parent households get back to work, educating at home is a very difficult, and many times, an impossible task.

Depending on the age of the child, they simply cannot be left home alone, and need adult supervision to adhere to online lesson plans. Additionally, access to online tools has proven to be difficult, especially in areas that are considered more poverty-stricken. Even with online access, in households with multiple children, the need for multiple devices for each child to use for their lessons is even more challenging.

Is virtual learning eliminating the need for traditional school facilities?

When facilities are closed, if the only alternative to virtual learning is no learning at all, then virtual learning is a must. That said, full-time students have shown a decline in academic growth overall through virtual learning. Full-time virtual charter school students experience 180 fewer days of learning in math and 72 fewer days of learning in reading in comparison to students in traditional facilities. In other words, this data shows that in a given year full-time virtual charter school students overall make no gains in math and less than half the gains in reading realized by their peers in traditional schools.¹

The closing of schools and rapid deployment of ad-hoc distance learning programs are now adding another layer of inequality for disadvantaged children. Early reports show that students in grades K-12 who lack the essentials at home to master online education are falling further behind their more affluent peers. If the impact of lost learning among these students is not properly mitigated, achievement gaps that have existed for decades will only widen.

How effective has virtual learning been during the current crisis?

According to the projections of the NWEA (Northwest Evaluation Association), a non-profit that assessed over 4.5 million students, major academic impact from COVID closures will be in mathematics. The numbers suggest there will be 30% less academic gain in reading and 50% less academic gain in math for fiscal year 2020, with low-income students hit the hardest. Students will return to school in the fall of 2020 with roughly 70% of learning gains in reading relative to a typical school year. In mathematics, students are likely to show decreased learning gains, returning with less than 50% of the learning gains and in some grades, nearly a full year behind what we would observe in normal conditions.

Will school funding decline?

Funding for K-12 public education has proven extremely reliable over time. State level public school funding increased every year from 1985 through 2017, including during the recessions of the late 80's and late 90's. The only exception of positive state level growth was due to the recession in 2009 and 2010. Even in 2009, when state level funding declined, the federal stimulus kicked in and continued to demonstrate positive year-over-year (YOY) growth for total funding (state and federal) in that year. YOY public school funding growth in 2010 was negative for the first time at less than a 2% decline. Since

then, YOY growth has been positive with the exception of the stimulus pull back in 2012 due to the funding rebound at the state levels. State level funding grew every year since 2011.²

How will large reductions in tax revenues at the state level affect schools?

Education spending accounts for approximately 26% of all state tax revenues³, and has been one of the most politically untouchable funding lines. We believe that impact will vary in each state as some states operate on annual budgets (as opposed to biennial budgets). Schools in states that fund education through property taxes rather than through sales taxes will be in a more steady environment. Most schools have been told to start budgeting for a 5-10% reduction in their per-student allocation, which is going to be implemented to prepare for upcoming funding issues. That said, the Fed has already demonstrated a commitment to ensuring available funding for K-12 education. If the last recession is predictive, stimulus packages will likely assist in funding a large portion of the gap created at the state level.

What could happen to education investments if there are funding or enrollment issues?

To reach full enrollment, we typically need less than 3% of the age-based population in a catchment area. In the event that there is a population shift in a given area or a broad change in parent sentiment regarding allowing their children back into a school building, our underwriting strategy at Tortoise should allow for quite a bit of attrition before showing signs of weakness. For funding, there is a buffer in the revenue side of our underwriting in that we underestimate projected enrollment, funding per pupil, and the YOY growth of the revenue per child. In addition, we have cushion in debt service coverage, so a deal with a 1.20x DSC could handle a 17% revenue cut before being below breakeven. We think the expertise of our underwriting strategy is a key advantage of working with a strong and experienced team.

As a result of the COVID crisis, will there be significant changes in school models?

Data and parent sentiment bolsters the argument for learning to continue in facilities. That said, we believe that over time, the model will shift to a more blended learning type of model: some of the day in the classroom and some of the day online. While district schools were first to use blended learning for some things, charter schools that garner attention for blended learning have, in many cases, used it to transform their entire education model. As blended learning has grown within district schools, it's often been a bit more ad hoc—a class here, one subject there—than in many charters in which blended learning has become a core part of the school's entire curriculum.

Many charter schools have been using blended learning and have attracted attention over the years—from Rocketship to Carpe Diem and from KIPP LA to Summit Public Schools. They have produced impressive student outcomes that are concrete and objective. Those clear and measurable results have been missing from many of the district schools attempting to adopt blended learning.

Within the existing Tortoise platform, incorporating blended learning offers the possibility for meaningfully reducing the investment risk of individual schools. Blended learning enables facilities to accommodate significantly higher enrollment without increasing square-footage. Additional enrollment not only increases exit options, it also offers the opportunity for follow-on investments in existing portfolio schools as increased revenues create the opportunity for upgrading campus facilities (e.g. science labs, gymnasiums, theaters, etc.).

What are some of the changes schools are considering for next fall?

- AM/PM staggered schedules: A portion of class will be instructed in a primary classroom in the morning, while some are in special education classes or at home learning concurrently. Later in the day, those opposing students would rotate into the part of the day that they have yet to attend.
- Alternating students between home and building throughout week: The student body would be divided into two groups. Schedules would rotate each week with half of the students in the building Monday, Wednesday, and Friday while the other half of the student body on a Tuesday and Thursday schedule. Blended learning would be crucial here and may require teachers to wear multiple hats throughout week.
- Multi-purpose space flexibility: Areas could be used less for physical education and more for group learning and creating other flexibility solutions.
- Outdoor space flexibility: Various schools in certain states plan to utilize outdoor space much more frequently for classroom lessons and experiences.

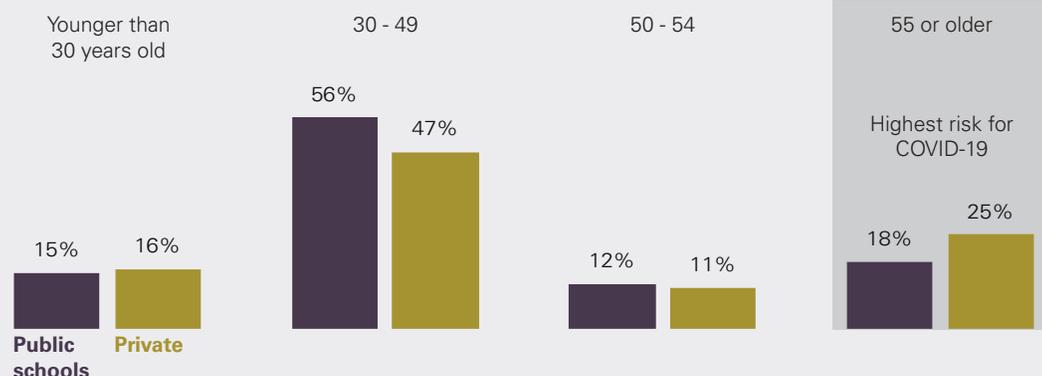
What impact has COVID had on teachers and other school staff?

Based on a survey in 2017-2018 (see graph below), 18% of public school teachers and 25% of private school teachers are over age 55 and are most at-risk of contracting the COVID-19 virus. Teachers in this age group may need to adapt quickly to provide online instruction or 1 to 1 instruction only. This could cause these teachers to take accelerated retirement offers or quit all together for their own safety. Several states currently do not require charter school staff members to be licensed educators. "Subject experts" or professionals with strong backgrounds can become teachers in some states and often fairly quickly. This could provide charter schools with a faster and deeper pool of teachers if a shortage were to hit.

Bonus chart: Half a million teachers vulnerable to COVID-19

Distribution of U.S. teachers by age

National Teacher and Principal Survey, 2017-2018



Reproduced from American Enterprise Institute; Chart: Axios Visuals

Are there any positive takeaways as a result of COVID crisis and the subsequent recession?

We believe that charter schools are well positioned to benefit from this environment. Typically, in recessionary environments, lower tuition private schools are the hardest hit segment of education. When this occurs, those parents are forced to look elsewhere. Charter schools are well positioned as an alternative for families that were choosing options that are different from those that traditional district schools have to offer.

¹ NWEA, The COVID-19 Slide: What summer learning loss can tell us about the potential on student academic achievement, April 2020

² BMO Capital Markets, The Education Industry: 2018

³ National Association of State Budget Officers Expenditure Report, FY 2016

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