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Unprecedented Change

Autumn is traditionally a season of reflection. Certainly, 2020 has provided us much to reflect upon.

It has been a year filled with unprecedented disruptions and uncertainty to our lives, jobs, and families. It is changing how we do business, socialize, receive healthcare, and even educate our children.

Uncertainty has also led to higher volatility in the financial markets as investors react to varying economic indicators and the impact of COVID-19. The Federal Reserve has been and will remain important for investors. One recent example economists cite: the stock market's climb after the Fed's September pledge to keep interest rates near zero for years if need be and then its pullback on renewed concerns about the stability of the economy. They also note that volatility could continue leading up to the presidential election on November 3.

Despite such challenges, William Blair remains focused on the long term. We have an 85-year history of evaluating and analyzing the likely effects of world events on the economy and investment and continue to be agile in serving clients, helping them meet their financial goals.

In our everyday lives, COVID-19 continues to accelerate broad structural changes within our economy and society. Analysts see a greater chance for a "new normal" to take root in many areas rather than a return to pre-COVID ways. The reopening of schools this autumn is a perfect example.

This issue of *Client Focus* puts a spotlight on the serious challenges that K-12 schools up through universities are facing this fall. Administrators, educators, and parents are struggling every day with the health risks to students and staff returning to in-person classrooms at a time when COVID cases are on the rise in many areas. We take a look at how teachers are embracing the latest technology to help and the ed-tech companies that are seeing a huge demand for their products and services.

The events of 2020 have also underscored the firm's mission to engage in our communities. COVID-19 has been especially difficult on our most challenged, diverse populations. I am proud of how our staff has responded, working with our community partners. In this issue we describe the efforts by two of our partners—Golden Apple and Chicago Children's Choir—as examples of the great work that can be accomplished when people reach out and work together.

While COVID-19 has changed many aspects of everyday life, it cannot dissuade Americans from voting. Early voting has already begun in some areas of the country and we encourage you to vote. Please stay safe as we exercise the single most important duty we have as citizens in our democracy.

On behalf of everyone at William Blair, thank you for your trust and the opportunity to serve you.

Sincerely,

John Ettelson President and CEO

A Back-to-School Season Like No Other

The tradition of heading back to school in the fall took on a whole new meaning this year.

As 56 million pre-K–12 students and some 20 million college students prepared to resume classes across the country, schools, universities, administrators, educators, and parents faced serious questions about the risks to students and staff returning with COVID-19 cases on the rise.

Should we start classes online? Will we be going back to school in person? Are we going with some hybrid model? What happens if someone catches the virus in school? Can we just shut down and send everybody back home?

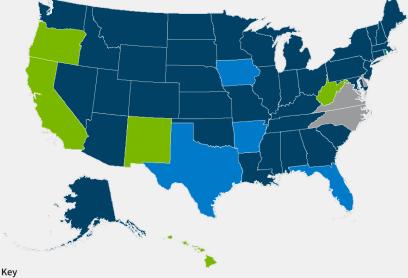
By mid-August, the first wave of reopened schools had already suspended classes after positive COVID tests. By the end of the month more than 25,000 positive cases had been discovered at 1,500 schools canvassed by the New York Times.

The chaotic start to the school year appeared to underscore only one certainty: the surge of online instruction. Schools raced to embrace this in the spring but demand looks set to grow even larger in the months and, perhaps, years ahead.

"We have to rethink everything," says Brandon Dobell, a managing director with William Blair's investment banking education group. "You have a massive breadth of potential outcomes around how kids learn, the

K-12 School Buildings Opened or Closed State by State

CLICK HERE FOR REAL-TIME STATE MAP



State-ordered in-person instruction available part-time or full-time*

- State-ordered closure in effect (including states where openings are delayed)
- State-ordered regional closure in effect
- Varies by school/district/dependent on health authorities
- Only hybrid or remote instruction allowed

*States with an order to provide in-person instruction may grant waivers to individual districts.

As of September 11, 2020

Source: Education Week

role of parents, the role of educators, how school is structured. Anytime you take an industry and put it inside a cocktail shaker and shake it a bunch, what comes out is chaos."

Accelerating a trend

Broad structural trends in the economy to adapt to digital tools were already in place before COVID-19. Those have accelerated. And analysts

see a greater chance for a new normal than going back to the pre-COVID ways any time soon-if ever.

"Chaos breeds opportunities, particularly technology solutions to answer some of these questions to help administrators, parents, students to try and deliver or get the same outcomes as we were getting with the face-to-face models," Dobell says.

"With 1.6 billion learners abruptly thrown into the deep end of online learning by COVID, we are seeing both the potential and the pitfalls of ed tech."

-Deborah Quazzo, managing partner of GSV Ventures

Fortunately, online educational solutions were taking root long before COVID. The educational technology sector ("ed tech") had established instruction models from clickthrough tutorials to Zoom meetings to classroom assessment tools. Zoom meetings pioneered in corporate training expanded into grade-school classrooms, and the first wave of online-college courses seen in the last decade expanded. Teachers, long resistant to using online learning tools, have had to adapt.

Justine Chiou, a William Blair banker with the education team, agrees that necessity is now the mother of invention in the sector.

"The pandemic has forced the global education system to really rethink how it operates," she says. "It affects everything from when and how to learn and how to deliver it all the way to getting the right content in the hands of teachers and students and thinking about how pedagogy really works in a remote environment."

Red-hot demand

Above all, analysts see two big factors likely to keep driving ed tech. Demand has exploded and the timeline for it is looking open-ended.

While most parents last spring had hoped or even assumed that COVID would be tamed and schools would resume by fall, Dobell says COVID shocks have already changed business as usual in schools, likely for good.

"The days of squeezing 30 kids in a classroom or a couple hundred college students in a lecture hall for a concentrated period of time could be limited going forward," Dobell says. "Even with a vaccine, education has changed forever."

Deborah Quazzo, a long-time William Blair client and the managing partner of GSV Ventures—a venture capital fund that invests in start-ups such as Coursera, Clever, ClassDojo, Course Hero—is seeing similar trends.

"With 1.6 billion learners abruptly thrown into the deep end of online learning by COVID, we are seeing both the potential and the pitfalls of ed tech," Quazzo says. "The fact that last spring many school systems were not ready to go online, did not have teachers prepared, and the inequity of low-income students lacking the bandwidth and devices to be able to do digital learning at home just elevates the need for change."

Colleges under pressure

At first glance, colleges and universities, with their wellmotivated and tech-savvy student population, would seem to be among the better-placed education sectors to weather the COVID storm. But that is not the case.

Soaring college tuition bills and punishing debt loads were big issues before COVID crippled the economy and sparked tens of millions of job losses among Americans.



Brandon Dobell, a managing director with William Blair investment banking

Now, both private and public colleges are under intense pressure to deliver a degree at more affordable prices. COVID has put \$30,000+ annual costs for on-campus students in a glaring spotlight.

The consultancy McKinsey released in April 2020 an economic model on the potential budget shortfalls that higher-education institutions could face as a result of COVID.

"Even under the more modest viruscontained scenario, 25% of public four-year institutions and almost half of private not-for-profit four-year institutions could suffer budgetary shortfalls of more than 5%, absent a public or philanthropic intervention," McKinsey says.

Dobell notes: "You have a lot of higher education institutions that could fail because they are not set up for a tuition amount that doesn't keep going up 5% per year."

And if students cannot attend classes on campus?

"Parents and students will question whether the online model or hybrid mode provides the same amount of value as an on-campus experience," Dobell says. "If the answer is no, parents will start pushing back against traditional price points. This is especially true in today's environment as the value proposition of degrees that don't lead to a career is under more scrutiny now than ever before."

Ed tech rushes to provide a safety net

Even at colleges, digital learning faces a steep curve.

As of 2018, 6.9 million American college students took at least one course online. Three million were taking classes exclusively online. However, there were 12.7 million students who did not take one course digitally.

CLICK HERE TO WATCH VIDEO

THINKING William Blair

NAVIGATING THE PATH AHEAD

The Post-Pandemic Global Education System

JUSTINE CHIOU MANAGING DIRECTOR, EDUCATION

As a result, many digital ed-tech entrepreneurs are pushing hard and fast to look for quality solutions.

For example, 2U, which contracts with nonprofit colleges and universities to offer online degree programs, launched five new programs with its university partners this year with plans to introduce at least 10 in 2021.

Chegg, a provider of online learning resources, said its second-quarter subscribers grew close to 60%, almost matching full-year levels in 2019.

Quazzo says she's excited about a new tech company, ClassEDU, which is teaming up with Zoom to build a flexible platform to more closely replicate face-to-face teaching. Among the features: video breakout rooms and collaboration tools that more easily allow multi-person sharing.

At William Blair

At William Blair, the education team in investment banking has also seen a steady flow of business despite a slowdown in many sectors since the pandemic exploded. Whether its startups looking to raise capital, investors looking to acquire the next breakthrough for educational experiences, or established companies implementing new strategies, ed-tech providers are attracting lots of interest.

"In today's environment we're seeing a lot of legacy models embrace change more quickly to think about how to embrace innovation better, to find more effective ways to deliver to learners," says Chiou.

StraighterLine: Learning Digital Lessons from Students

Education company StraighterLine, founded more than a decade ago, has delivered many lessons to its online student body over the years. But the firm says it has also learned important lessons from its students to drive the company's growth.

One big lesson is understanding that students need flexibility and control over their pace of learning.

That dynamic means everything to today's digital learner—most often someone who is not going straight from high school to an on-campus residential experience. Instead, these students are typically working and taking on an education program while juggling other important obligations like work, family, and childcare. "Our courses tend to be student-paced and tutor-supported so students can move as fast or slow as they need," says David Parento, president and cofounder of StraighterLine. "Any device, any time allows students to take in as much time as they need."

The other lesson goes to the bottom line for StraighterLine students. From day one, the firm's mission was to lower the cost of higher education. Online courses are cheaper to deliver than in-person classes. But colleges and universities have been reluctant to offer them and cut into their tuition revenue, says Burck Smith, StraighterLine CEO and co-founder.

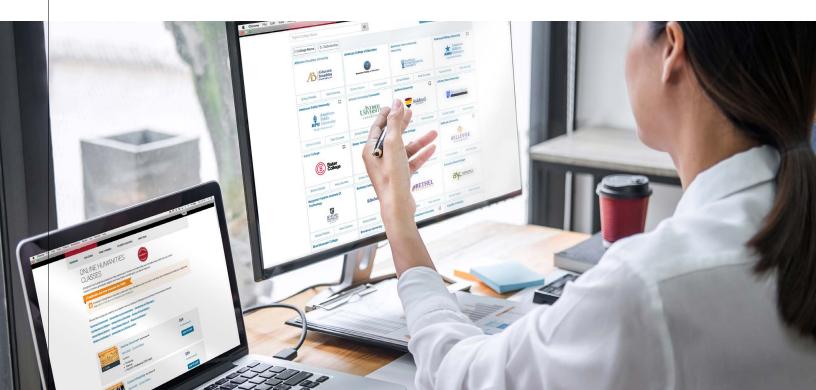
But with the cost of a four-year degree now well into six figures, traditional

colleges have had to bend in recent years and become more accepting of credits from digital learning platforms. COVID-19 has accelerated the shift.

"Now we are at a point where consumers are consciously wondering if they should be paying the same for an online experience as they would for an in-person experience," Smith says. "So it's a level of consumer change that hasn't been present over the last two decades."

Founded in 2009

Entrepreneurs Smith and Parento founded StraighterLine in 2009. The Baltimore-based company provides undergraduate college courses to students online for \$99 a month, with a guarantee





"These are unprecedented times where the realities of a pandemic challenge learners to chart new pathways through education."

-Burck Smith, StraighterLine CEO and co-founder

that successful course work will transfer to an accredited college in its network. Over the years, the company has expanded from directly working with students through its website to cooperative and creative partnerships with universities and employers, supporting 35,000 new students annually.

In May, StraighterLine partnered with private equity firm BV Investment Partners in Baltimore to grow its strategy and revenues. William Blair was the exclusive advisor to StraighterLine.

"The need for efficient and effective remote learning offerings has never been more evident than today," Jason Kustka, managing director of BV Investments, said in May. "We believe StraighterLine has true breakout potential, with a differentiated platform and significant opportunity to grow within the higher education and employer markets."

The company is continuing to invest in technology including Academy, its digital platform with links to the firm's 130 partner institutions. These colleges and universities team up with StraighterLine to create their lowercost online pathway programs to allow digital students to earn credits.

Just over the summer, StraighterLine announced two new relationships with Indiana Tech and Denver Community College to launch education programs for adults.

StraighterLine is also expanding into the employer market, partnering with the company Bright Horizons which works with corporations across the country to offer college degree programs to their employees.

It's all part of a mission to help Americans retool in their ambition for higher education.

"These are unprecedented times where the realities of a pandemic challenge learners to chart new pathways through education," Smith says. "It is challenging institutions to make good on their promises of equity and affordability to help learners access the courses they need to complete and thrive."

Demand at Online-Learning Firms Soars

When thousands of schools and universities across the country shut down overnight last spring to stop the spread of coronavirus, educators were caught off guard with limited or no digital tools to teach students.

They scrambled to find resources so students could finish their class work online. So parents and students were generally forgiving given the emergency. By fall, expectations were higher.

Stephen Sheldon, a William Blair equity analyst covering the education sector, says educational institutions have been and are continuing to look for any and all digital learning solutions—from online classes and tutoring to sophisticated interactive curriculums and management services.

"The demand is going through the roof," Sheldon says. "This is especially the case in higher ed. The longer this goes on and the longer there's uncertainty, more universities will need to make the decision to invest and push people online, or at a minimum have solid online contingency plans to handle any incremental in-person restrictions."

He is clear about the pressure schools are under: "If parents and students are paying the same tuition and a university is forced to go online and does it in a very low quality way, it could be detrimental to the perception of value and negatively impact enrollment trends."



"...we are becoming more convinced about accelerating structural adoption of online learning beyond the pandemic."

-Stephen Sheldon, William Blair equity analyst

K–12, higher ed facing different stresses

Sheldon cites the ed tech companies he covers—K12 [LRN], 2U [TWOU], Chegg [CHGG], and Pluralsight [PS] as examples.

"Ending September, their shares on average have doubled the return of the S&P 500 since schools went into lockdown on March 13," he says. "Additionally, since the broader market bottomed in late March, shares are up on average well over 100% even with a more recent pullback." Universities clearly have varying degrees of technology expertise and funding. But Sheldon says many have struggled to launch quality online capabilities at scale with quick turnaround times.

Such struggles and delays are concerning, he says. But the crisis is also presenting opportunities for ed tech providers who can step in and plug these holes across the education landscape. Longer term, the new normal for students will also support broader adoption of online learning. While higher education is throwing both capital and energy at getting a rich and focused learning experience online ASAP, the challenges facing the kindergarten through high school levels are more daunting.

"K–12 is a somewhat different story," Sheldon adds. "Many school districts just don't have the capital. And shifting online involves many more administrators, teachers, students, many more of everything. It also requires more parent involvement, especially with younger students. So it's not easy to do quickly. But there are still many technology providers out there."

"Every school, every district is looking at what makes the most sense and trying to run with it. It's creating higher demand for all the technology and content. But again, it's a highly fragmented space," he adds. From a technology perspective, both higher education and K–12 will rely heavily on third-party software vendors to provide online options. These include video collaboration providers like Zoom [ZM] and Google Meet.

There are also widely sought learning management systems (LMS)—such as Instructure's Canvas and Blackboard that offer platforms to manage and organize education materials and track student progress.

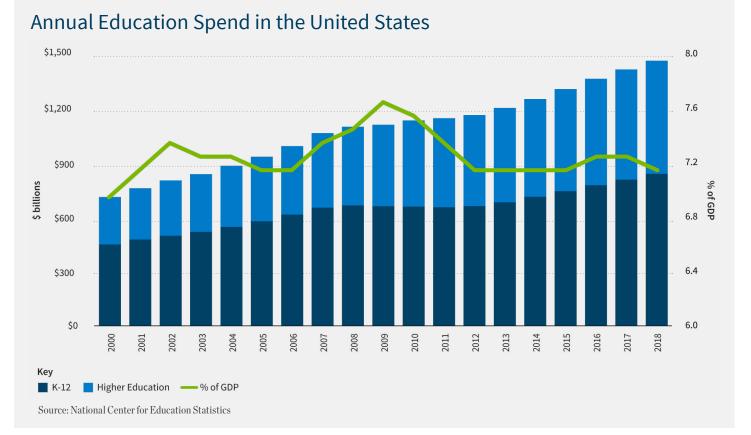
2U and K12

Sheldon says two companies well positioned to capitalize from the shift to online education are 2U and K12.

2U—a provider of online degree programs, short courses, and boot camps through university partnerships—in August reported second-quarter revenue 35% yearover-year to \$183 million. The company expects organic revenue growth to accelerate in the second half of 2020, reflecting increased demand for its offerings from both universities and students. Sheldon notes that higher recent demand could be a multi-year tailwind to 2U's top-line growth.

K12, the largest provider of online programs to U.S. primary and secondary schools, has seen online enrollments increase to over 170,000 as of August 21. That represents over 40% growth relative to last year with over a month left in the enrollment window.

"While some of the boost could be temporary, we are becoming more convinced about accelerating structural adoption of online learning beyond the pandemic," Sheldon says.



Golden Apple Stepping Up for Teachers



Virtual Scholar Institute 2020

With families and communities across the country struggling with the start of a school year like no other, COVID-19 has been especially challenging for those living in the most underresourced communities.

For schools already hit by limited funds, teacher shortages and few online resources, COVID has shined a bright spotlight on the inequities.

Foundations like the Golden Apple in Chicago were formed years ago to help bridge such gaps in education.

Now, they too are finding today's environment of racial unrest coupled with the economic and health crisis caused by COVID pushing the traditional educational system into a new world filled with both challenges and opportunities. "It's all coming together at once a confluence of events," Golden Apple President Alan Mather says of the unprecedented back-toschool challenges.

He sees the biggest stresses on the system as a shortage of teachers; a lack of digital devices and Wi-Fi access among low-income students; and teachers unprepared to use online teaching tools.

"The biggest part of what we do is prepare teachers to go into schools of need and have a real impact on student learning," says Mather. "Often these schools are the hardest to staff. In the fall of 2019, long before COVID, there were 1,800 teaching positions unfilled in Illinois."

Nationwide, pre-COVID, the Economic Policy Institute had projected there

would be 200,000 vacancies in American K-12 schools by 2025.

Golden Apple Foundation, a William Blair community partner, was founded 35 years ago to award teachers and school leaders for excellence in teaching and leadership. Award recipients play an important role in preparing the next generation of teachers by providing instruction and mentorship through the Golden Apple Scholars program.

The program is designed for high school and college students to become highly effective teachers in the most challenged schools in Illinois, filling teacher vacancies. Scholars mirror the diversity of the students they are teaching. These future teachers participate each summer in the Scholar Institute—a critical component of the scholars program. Participants meet on Illinois college campuses for intensive classwork and skill development to teach in a variety of school settings urban, suburban, and rural.

Due to COVID, this year the threeweek institute went virtual for the first time. More than 800 scholars gathered online, working with over 100 instructional coaches, school leaders, master teachers and mentors. Scholars also taught students attending summer school virtually.

"As we innovated, we're pleased that our scholars actually gave us higher marks

Creating Harmony Virtually: Chicago Children's Choir

this year than we received last year on our professional development," says Alicia Winckler, Golden Apple CEO.

That is not to say that teachers want to teach in a totally virtual world, she adds. In-person teaching remains the most effective method to observe and engage with children.

"But there is a sense of optimism about the virtual possibilities," Winckler adds. "There's no question that COVID-19 is going to be a step change in how we work together, how we collaborate, how we do school and engage. The foundation is committed to evolving its teacher programs to meet the needs of students now and in the future."

Partners in learning

Golden Apple also partners with organizations to bring the best practices and most current resources to its scholars so they are prepared to excel in today's and tomorrow's classroom—whether that's faceto-face or online. Among those partners is Chicago nonprofit LEAP Innovations, a leader in providing personalized educational tools for use in the classroom or remote learning.

"The challenge is to take those same products—if they were already being used in the classroom—and shift the practices online remotely," Mather says. "When students are familiar with ed tech, it makes it that much easier to transition to the virtual online environment."



Chicago Children's Choir perform "We Are" via Zoom

The Chicago Children's Choir, a William Blair community partner, has jumped online to lift spirits and show the way to working together to cope with COVID-19.

The choir, founded 64 years ago in direct response to the civil rights movement to inspire and unite diverse youth, now includes 140 choirs across Chicago serving more than 5,200 students.

CCC turned to Zoom this spring for virtual gatherings—rehearsals, performances, music theory classes, fireside chats. All programs will remain online until at least January 2021.

"We've embraced the cloud and this digital platform—it's been a blessing and a challenge. But it's what we need to do," Josephine Lee, CCC's president and artistic director, said during an online performance for William Blair employees this spring.

The choir's performance marked the launch of William Blair's cultural business resource group for employees, One Alliance. Chicago Children's Choir performed "We Are" by W. Mitchell Owens, a choir alumnus and composer in residence.



VIDEO Chicago Children's Choir Performs "We Are"

Estate Planning Documents for Your College-Age Children During COVID-19



As your child begins college, a gap year program, or study abroad, there are three important documents he or she should have in place that will allow you to help in the event of an emergency or other circumstances: a HIPPA release; durable power of attorney for healthcare; and durable power of attorney for property.

This is particularly important in 2020 given concerns about COVID-19.

At the age of 18, your child is legally considered an adult in nearly every state. The Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA) and other privacy laws such as the Family Educational Rights and Privacy Act (FERPA) prevent parents of children age 18 or older from accessing their children's grades, bank accounts, disciplinary records, or even information about their healthcare.

Your ability to talk to the school, doctors, or a hospital in the event your child has a medical emergency may be restricted even if you are paying tuition or medical bills and/or your child is on your healthcare plan.

More information about these documents is available in William Blair's report:



Estate Planning Documents for Your College-Age Children During COVID

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