COVID-19 and the State of Technology in Louisiana Schools

Overview

One of the big issues that impacted public education when the COVID-19 outbreak hit the U.S. was the state of Louisiana's technology infrastructure and how it would affect students who were suddenly moved from in-person instruction to a reliance on online learning.

This was an acute issue when schools were closed statewide in March of 2020, ending direct instruction for the remainder of the school year and forcing an uneven transition to technology-based learning for most students. It is no surprise that many school districts found themselves ill-prepared for such a swift and far-reaching change.

At least two major issues became apparent:
1. Most teachers had little or no experience in providing online instruction to students. This posed particular challenges for teachers of younger students. In addition, few schools had protocols, materials, or content geared for virtual learning.
2. There was a huge technology gap among students. Many economically disadvantaged kids lacked access to devices while other students, particularly in rural areas, had problems with the availability of reliable Internet connections.

During the summer months, school districts worked full-time devising plans for how to reopen in the fall under various scenarios. Much of their work had to do with putting in place safety protocols, but there was also a large focus on closing the gap on technology issues.

Thanks to federal funding from the CARES Act, significant resources were poured into purchasing portable devices for students. Connectivity presented different challenges, but dollars were also available to mitigate those gaps in some instances.

In July and again during the school year, the Louisiana Department of Education conducted an internal survey of districts to see where they stand in terms of technology access. CABL has analyzed their responses in putting together this broader picture of the school technology landscape in the state and come up with a number of pertinent findings:

- Approximately 76% of districts that reported have, or are approaching, a 1:1 or better device to student ratio.
- 59% of districts reported having confirmed Internet connectivity for 75% of their students or fewer.
- The major issue for the most challenged districts, even those with the most economically disadvantaged students, is no longer access to devices, but connectivity to reliable Internet.

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72%

of districts are operating with in-person in Phase 3 and

28%

are operating with a hybrid model in Phase 3.

The bottom line is that while clear progress has been made in terms of technology since initial school closures in the fall, significant challenges remain for many students across the state. This has been minimized to some degree because Louisiana schools are now in Phase 3 operations. In practical terms that means that most are providing in-person instruction, with only a little more than a quarter still utilizing some form of hybrid teaching.

But as cases of COVID-19 continue to increase in Louisiana, that could change. Schools have not been large spreaders of COVID to date, but hotspots have broken out in some areas forcing some schools to go back to periods of virtual-only instruction. It is not unreasonable to think more of this could occur as the winter approaches and that places more students at risk in schools and districts that still face technology challenges.

DEVICES

The good news when it comes to technology is that it appears school districts have made tremendous progress this year in putting more devices in the hands of students, though it is difficult to quantify the exact degree of improvement.

The Louisiana Department of Education conducted an internal survey of districts in July of 2020 and then updated some of those findings in September. However, due to differences in the way the questions were asked, it is hard to gauge exactly how many more devices are available to students than there were earlier in the year. It is also important to note that not all districts responded in the same way to the surveys so there are clearly gaps in the available reporting.

But in piecing together various data points coupled with public testimony from state education officials, far more students now have access to school-issued devices than ever before. The department's Statewide Educational Technology Plan was last updated in January of 2020. It called for a goal by this year of a 1:1 device to student ratio at each school.

That is key, because that goal envisioned every student having access to some sort of computer every day while they were on the school campus. In fact, the report indicates that as of its release more than 90% of the available devices in public schools were in the classroom, the library or a mobile lab, while only 8% were with students all day as they moved from subject to subject and class to class.

Top 5 districts with highest device-to-student ratio

Fast forward that to today where the Department of Education's latest internal survey of districts estimates approximately 87% of students have access to some sort of a portable device that has been issued to them - primarily Chromebooks, but also laptops and tablets. That represents a major shift in students' access to portable technology which could reap significant educational benefits for students long after this pandemic is over if the current ratios are maintained or enhanced.

Interestingly, there does not seem to be much in the way of correlation between either rural or economically disadvantaged school districts and their ratio of devices to students. While it's true that the districts with the lowest ratios are both relatively poor and rural, there are many more at high levels.

At least 15 rural districts with more than 70% of economically disadvantaged students have device to student ratios of 1:1 or greater and a number of others are approaching that. It has been suggested that the availability of Title I dollars in those districts may have been used earlier on to provide that access to students to enhance their learning opportunities.

Statewide, of districts reporting their data, there are 522,187 devices available to students at their school and of that 407,772 are portable devices that students can take home.

CONNECTIVITY

The bigger issue dealing with technology seems to be with access to the Internet. While more than three-quarters of school districts report device availability for students at or approaching a ratio of 1:1, access to the Internet itself is extremely limited for many of them.

The statewide data from districts who surveyed parents and reported results indicated that close to 70% of students have confirmed some form of Internet connectivity, but that means that almost one-third have not. Numerically, that equates to about 181,000 students without online access, though the actual number is likely significantly higher since not all districts were able to report.

Connectivity is something of a two-fold issue. One is that many households simply cannot afford to pay for an Internet connection. Another is that there are some rural areas of the state where there is no reliable Internet service available. The problem is exacerbated by the fact that many households must deal with both of those issues.

Districts have used innovative means to try to address connectivity issues. Statewide data indicates they are adding hotspots in certain areas, providing students mobile wireless service through a mi-fi, and in some cases even paying for home Internet service. To date that has helped more than 38,000 students get access to the Internet, but that is still less than 20% of the students who are confirmed to need it and in many cases the service they receive through these stopgap measures can be both slow and spotty.

Top 5 districts with highest confirmed connectivity

As suggested earlier, this issue has a particular impact on economically disadvantaged families and families who live in rural areas. It should be noted that Internet access in schools themselves is not a problem. All schools are equipped with reliable Internet service. The problem is when schools are forced to shift to virtual or hybrid teaching models and students must rely on the Internet to do their school work.

The five districts with the least amount of student connectivity are all rural and serve high proportions of economically disadvantaged students.

Looking more broadly, 33 of the 53 school districts that reported their data have more than 25% of their students who lack access to the Internet. They are all rural, with the notable exceptions of Rapides and Jefferson, which serve a large number of economically disadvantaged students, and the suburban school district of Bossier.

Districts with the lowest confirmed connectivity:

District	% Economically Disadvantaged	% Confirmed Connectivity
Grant	75%	12%
St. Helena	96%	19%
Tensas	94%	25%
Caldwell	75%	26%
Franklin	84%	29%

Providing reliable Internet service in rural areas is a complex issue. The biggest problem is that it is not cost effective for Internet Service Providers to offer the service without major government subsidies, and while the situation has certainly improved over the years, huge gaps remain. Often where Internet service is available in rural areas, it is expensive, unreliable, and significantly slower than what users receive in urban areas.

The COVID pandemic has shed a bright light on the digital divide in less populous areas of the country, but ultimately it will take broader public policies, and not crisis-driven mitigation efforts, to solve the problem.

But what the data show in urban areas is especially disconcerting. The fact that more than half the students in Jefferson and Rapides Parishes lack confirmed Internet connectivity and significant numbers of students cannot go online at home in Orleans, Lafayette, Bossier, and Ouachita suggests another problem. It is not that reliable high-speed connections are not available, it is because they are simply unaffordable to too many families. In those six districts 70% of students on average are economically disadvantaged.

Conclusion

The data reported by school districts in these surveys paints a broader picture of the technology landscape for students in Louisiana and confirms a number of things that before we only assumed. Many students in Louisiana are at great risk of falling behind educationally because they lack sufficient access to technology. The issue with devices is one that school districts continue to address. Much progress has been made in ensuring that students have laptops, tablets, and Chromebooks that they can bring home to continue their studies even if they become sick or schools are forced to reduce in-person instruction.

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The issue with connectivity is more challenging and cannot be as easily addressed. Stopgap efforts have been helpful, but to date they have only been able to reach a fraction of the students who lack access to the Internet. Today about 28% of school districts report that they are still using some sort of hybrid instructional model in at least some schools and grades. That is lower than it was when school started in August, but still represents a significant number of students who need Internet access.

What is disturbing is the potential impact this is having on economically disadvantaged students. The problem is less acute now that schools remain in a Phase 3 opening scenario where most schools have returned to mostly in-person instruction. But as winter approaches, more people are forced to stay indoors, and coronavirus cases across the state continue to trend upward, the situation could become much more critical.

Louisiana public schools enroll a high percentage of economically disadvantaged students. We knew before the pandemic that many of those students struggle and face challenges that their more affluent classmates do not. We see that in testing, graduation rates, and their transition to postsecondary education. We cannot allow COVID-19 to rob them even further of opportunities to succeed. But the data culled from these school districts suggest they are now at much greater risk.

Nationally, the country needs to reckon with the problem of reliable Internet access. It is a large, complicated, and expensive issue to confront, but it must be done. At the state level recent legislation to study the issue and seek solutions is a positive step, but not one Louisiana can solve by itself. And it will take time.

In the meantime, there is the immediate situation confronting hundreds of thousands of students whose education is threatened. What this data tell us more clearly than anything we have seen thus far is that the technology gaps in Louisiana are real, they can be quantified in the numbers and locations of real students, and they have the greatest impact on our most vulnerable children.

While we must continue to seek a technology solution, what these students need now is an education solution. What that means from CABL's perspective is ensuring that the learning gaps of children are identified throughout the school year, so we know exactly where students are on their pathway to success. We must have rescue plans for every student who needs one, acknowledging that technology will no doubt be a part of it, but that more will be required. And we must look at learning solutions that may never have been seriously considered before such as longer instructional periods, shorter breaks in the school calendar, and extended school years.

We can now very clearly see that it is our most vulnerable children who are again at the greatest risk. Failure to take the necessary steps to help these students hurts not only them and their families, but threatens the future economic strength and prosperity of our entire state. We cannot allow that to happen.

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251 Florida St., Ste. 400
Baton Rouge, LA 70801
225-344-2225
cabl.org