

U N I V E R S I T Y O F M I S S I S S I P P I

GEEER 2.7

Data Project

DRAFT Interim Report
April 2022





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REPORT SUMMARY

The University of Mississippi partnered with HCM Strategists (HCM) to study the correlation between virtual, hybrid, and in-person instruction during the COVID-19 pandemic and initial and longer-term student engagement and academic outcomes in Mississippi. The goal of this study is to identify what Mississippi leaders can learn from this experience to inform future education delivery policies and programs and related supports for students, families, and educators. The full study runs through September 2022.

This interim report covers:

- A qualitative study of virtual learning in three case study districts supported by a panel of peer experts;
- Analysis of publicly available quantitative data on student outcomes from the onset of the pandemic through the 2020-21 school year; and
- Relevant initial policy recommendations for the future of virtual learning and academic acceleration post-pandemic.
- The full final report will include additional quantitative data from the 2021-22 school year, input on these data findings by the expert peer panel, and any relevant updates to policy recommendations.

SUMMARY OF RECOMMENDATIONS

Major Themes from Research and Expert Peer Feedback

The qualitative study, expert peer review, and initial quantitative analysis surfaced the following themes policymakers should consider when examining options for virtual learning and education recovery post-pandemic:

- A need to focus on students most impacted according to initial evidence;
- The need and potential for cross-sector collaboration;
- The importance of effective communication and dissemination;
- The critical role of high-quality curriculum and training;
- Identification of ongoing funding to support education technology and other innovations; and
- Support for continued and coordinated data collection and research.

Initial Policy Recommendations

The initial recommendations outlined below are based on the research conducted through Fall 2021 and will be refined and revised through the course of the complete study. They are discussed in more detail in the Policy Recommendations section.

- **Create a State Advisory Task Force and Regional Acceleration Hubs.**
 - Convene a State Advisory Task Force to Advance Education including students, families, educators, and local and state leaders, drawing from existing cohorts (Mississippi Department of Education (MDE) Advisory Councils, Digital Learning Coaches, Technical Advisory Committee) to:
 - Examine all relevant data on pandemic recovery efforts and identify implications for state and district actions.
 - Lead efforts to explore sustainability of funding for evidence-based best practices.
 - Create Regional Acceleration Hubs for collaboration across organizations by geographical locations to:
 - Promote coordination of resources from existing community organizations, government, philanthropy, advocacy, business, and other groups and extend the reach of services.
 - Empower representatives of these organizations to help match local needs with regional offerings. Existing MS Regional Education Service Agencies could be leveraged and/or expanded to support these efforts. One leader from each Hub could participate in the Advisory Task Force.
- **Promote High-Quality Virtual Learning.**
 - Inform the state-level strategy for supporting high-quality virtual learning that is accessible to all students in Mississippi when virtual learning is needed. Options include:
 - Continue to review and approve district-run virtual options on a yearly basis with specified conditions.
 - Continue to provide and expand student access to virtual programming on an 'ala carte' basis, potentially utilizing Regional Acceleration Hubs.
 - Consider a full-time state-run option to mitigate situations where lack of demand makes a district-led or regional option unsustainable.
 - Support separate staffing for virtual and in-person instruction.
 - Expand high-quality instructional materials and training.
 - Utilize some in-person assessments.
- **Drive Learning Acceleration.**
 - Focus on the continued academic advancement of all students by meeting them where they are through:
 - Vetted tutoring and credit recovery programs with subsidized costs for low-income families;
 - Guidance and/or resources to before- and after-school child care providers and other community support organizations; and
 - Appropriate technology, connectivity, and training supports for these programs through MS Connects.
 - Utilize Regional Acceleration Hubs to coordinate and distribute information about these offerings.
- **Continue to Support Technology Infrastructure and Training.**
 - Support district learning management system (LMS) implementation.
 - Study the impact of the MS Connects Digital Learning Coaches program to expand upon its successes and further its reach statewide.
 - Create a consistent statewide data system for tracking the use of devices and reliability of internet connectivity in districts and homes (where virtual learning is extended to home).
 - Create an intergovernmental working group of leaders from relevant state agencies (MDE, MS Department of Information Technology Services, MS Public Service Commission) focused on internet access to share data, resources, and strategies with families. Coordinate information-sharing through Regional Acceleration Hubs.

- **Conduct Ongoing Research to Drive Informed Strategies.**

- Continue to document and analyze the impact of the pandemic on student learning and identify evidence-based interventions.
- Create a longitudinal study of P-12 student cohorts comparing annual progress through at least 2026. Identify consistent reporting methods and infrastructure to ensure comparable data across districts.
- Include qualitative research to examine specific

districts and their instructional approaches over time to dig more deeply into emerging data trends.

- Make as much data publicly available as possible so that independent entities can do their own analyses and use the information to make strategic decisions.
- Tap the State Advisory Task Force to Advance Education to periodically examine the data, inform further collections, and update policy recommendations.

METHODOLOGY

Qualitative Study

Case Study District Identification

- We created matrices identifying key distinguishing characteristics of 17 potential case study districts across the state to help identify a set of three with diverse representation of geography, student demographics, virtual learning information, and state accountability grades. We consulted with state leaders for additional input in narrowing the list. We began outreach to potential participants to determine which would be willing to participate in the study. This resulted in the identification of Gulfport, Leland, and Marshall County as case study districts.

Feedback and Interview Protocols

- We created moderator guides for case study district feedback session participants, including district administrators, educators, families, and students. We also created an interview protocol for state leader feedback sessions. We consulted with Adam Burns of Edge Research for input in refining these guides. Modifications were made to the guides in Summer 2021 given the need to accommodate case study district availability by scheduling sessions close to the start of the 2021-22 school year.

Feedback Sessions and In-Depth Interviews

- We conducted 11 virtual feedback sessions with district leaders, educators (including school leaders and teachers), parents/families, and students between late May and August 2021. Participants were recommended by district leaders and offered insights from their vantage points on virtual learning in their schools and districts.
- We conducted additional individual in-depth interviews or small group feedback sessions with a set of state leaders to probe initial goals for MS Connects and virtual learning.

Evidence Collection

- We gathered publicly available information on case study districts, including their remote/hybrid learning plans and related resources and materials, 2020 summer and return to school plans, key district information and points of contact, and any relevant news coverage of district activities. We also collected information provided by MDE to guide and support district virtual learning plans.
- We organized materials into electronic folders, compiled themes from district feedback sessions and state leader interviews into companion documents, and included district profiles.

Expert Peer Panel Review

- We drafted a list of potential stakeholder experts to represent the following: teacher, parent, superintendent, school board member, policy leader, education advocacy, business, and philanthropy. We solicited

input from state leaders on the list and potential experts to fill panelist roles. This resulted in the identification of seven experts; one of these experts was trained for the panel but had to withdraw before completing the role. The 6 participating panelists are listed in Appendix A.

- We created a review tool for peers to use in examining evidence collected and identifying innovations, best practices, and challenges in virtual learning plans and implementation. Importantly, we noted that the goal of this process was to identify both challenges and successes but not to cast negative judgment on specific school districts operating in a pandemic.
- After participating in a training session, peers had roughly two weeks to complete and submit independent reviews of materials via Google Forms. We examined these reviews to identify trends, themes, and questions for further discussion.
- We conducted a virtual meeting using the discussion guide to identify areas of consensus across the peers and inform updates to the study results.

Quantitative Study

HCM advised the University of Mississippi (UM) on desired disaggregated data elements to collect from MDE. UM worked directly with MDE to gather publicly available data and create a consolidated spreadsheet of data from 2018-19, 2019-20, and 2020-21 for this interim report. The final study will include updated data from 2021-22. Data gathered so far include:

- Outcomes: MAAP & ACT proficiency and growth, kindergarten readiness, graduation rate, and English language proficiency
- Engagement: Enrollment (P-12 & PS), chronic absenteeism; MAAP, ACT, and advanced course-work participation
- MS Connects: Instructional delivery & district device and broadband expenditures
 - Important caveat: MDE cautions instructional delivery data is not reliable; the state is in the process of verifying valid data for future analyses – this has limited much of the original intended analysis for this project.
- Disaggregation: Data disaggregated where available by state categories of gender, race/ethnicity, socioeconomic status, students with disabilities, English learners.

The team also discussed with MDE the possibility of gathering any additional data around MS Connects devices, Learning Management Systems (LMS), and broadband allocation and usage – including BrightBytes, technology and learning needs assessment data, and district waiver requests. These data were not available for this interim study.

Using the spreadsheet created by UM, HCM examined the data to look for trends and potential areas for further exploration. We also examined the publicly available

District Learning-at-Home and Summer Enrichment Plans (2020) and MDE District Restart and Recovery Plan Summaries (2020-2021).

Policy Recommendations

Based on all available evidence gathered for the study, we drafted interim policy recommendations for peer review

in late Summer 2021. Following the independent peer review and group discussion session, we updated the interim recommendations. Following the initial quantitative data analysis, we made additional updates to the recommendations. The final interim set is found in the Policy Recommendations section of this report.

GUIDING QUESTIONS

The overarching questions guiding this complete study are as follows:

- What is the correlation between virtual, hybrid, and in-person instruction and initial and longer-term student engagement and academic outcomes in Mississippi?
- What can Mississippi leaders learn from this experience to inform future education delivery policies and programs and related supports for students, families, and educators?

MISSISSIPPI TECHNOLOGY RESPONSE FOR EDUCATION

The onset of COVID-19 resulted in the closure of Mississippi schools from March 14, 2020 through the end of the 2019-2020 school year. During that time period, MDE provided guidance and resources to districts to support virtual learning and state and federal leaders waived regular education requirements that would prove impossible to meet given school closures – including attendance, promotion, and assessment/accountability requirements.

In addition to this flexibility, in Spring 2020 MDE created and shared a digital learning guide, surveyed local districts to understand technology gaps, and used the findings to inform a plan to close those gaps. Recognizing the significant needs across the state to expand access to the internet and to learning devices and systems, state leaders prioritized closing the digital divide in short order. This priority became the Mississippi Connects initiative, which was supported by two laws passed on July 9, 2020.ⁱ

The Equity in Distance Learning Act (Senate Bill 3044) provided \$150M for education technology including devices, learning management systems, and more to schools based on average daily membership in the 2019-2020 school year.ⁱⁱ The Mississippi Pandemic Response Broadband Availability Act (House Bill 1788) dedicated \$50M for districts and schools to expand broadband services; this funding was distributed by MDE based on federal broadband data.ⁱⁱⁱ

State leaders collaborated to implement this legislation quickly and provided guidance and support to districts in identifying and procuring technology and broadband needs. The effort resulted in the purchase of nearly 400,000 devices by 148 out of 150 Mississippi districts by December 2020, and 144 districts leveraging broadband support.^{iv} This is a transformational effort; before the pandemic, only 23 out of the state's public school districts had a one-to-one technology initiative.^v Other elements of Mississippi Connects

include Digital Curriculum and Learning Management Systems; Professional Development; and Telehealth and Teletherapy.^{vi} In 2021-22, the state implemented the Digital Learning Coaches program to continue supporting district use of technology.^{vii} State leaders highlighted Mississippi Connects as a foundational element of the state's education pandemic response in the Mississippi State Plan for the American Rescue Plan (ARP) Elementary and Secondary School Emergency Relief (ESSER) Fund.^{viii}

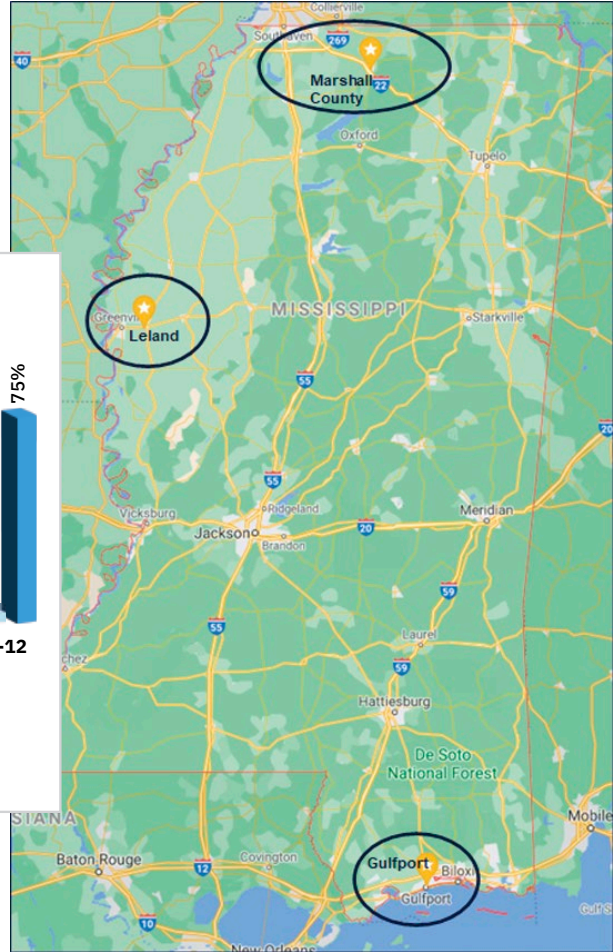
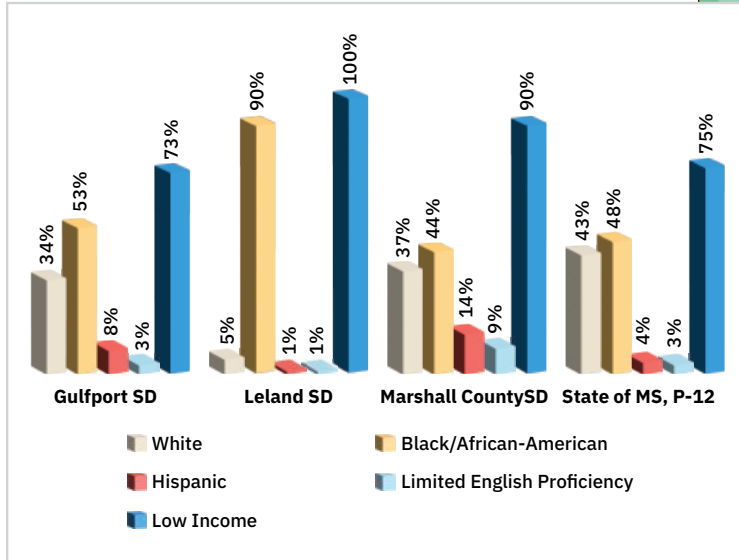
MDE has also made efforts to develop and adapt virtual learning policies throughout the pandemic. As districts planned for the 2020-21 school year, the State Board of Education provided three options for delivery of instruction: in-person, virtual, or a hybrid of both (in a hybrid model, districts could offer students either a fully virtual or fully in-person option or could provide individual students with a combination of attending in person on certain days and learning virtually on other days).^{ix} MDE made efforts to collect district-level data on instructional delivery methods throughout the school year, but at the time of this report such data is considered unreliable. In Spring/Summer 2021, the state provided a draft virtual learning policy, collected public comments, and published the policy in mid-July.^x For the start of the 2021-22 school year, the state initially required districts to operate fully in person or to also offer a fully virtual option following state-specified criteria with local board approval. However, the rapid spread of COVID-19 across Mississippi at the start of the 2021-22 school year resulted in the state's decision to temporarily waive the new policy and allow districts to offer virtual or hybrid instruction through October 31, 2021 as students and educators were forced to quarantine.^{xi} A similar window for hybrid flexibility was offered from January 20 through March 11, 2022.^{xii} At the time of this report, MDE continues to provide ongoing guidance and to expand data collection and analysis.

QUALITATIVE FINDINGS

Case Study Districts

Following the district selection process described in the Methodology section above, the team identified three case study districts as depicted in the map to the right: Gulfport, Leland, and Marshall County school districts.

These districts offer diversity of geography and demography, as shown in the chart below.^{xiii}



The districts also vary across student population, 2020-21 instructional model and estimated students in each model, and 2019 accountability grade and per pupil expenditure (PPE), as shown below.^{xiv}

District	# of Students (2021)	20-21 Instructional Models	Estimated %/Model December 2020	2019 Accountability Grade	PPE (2019)
Gulfport	6,367	Full-time in-person with parent-requested virtual option	75% in-person/25% virtual	A	\$8,844.07
Leland	763	Virtual only	N/A	D	\$13,698.14
Marshall County	2,740	Hybrid in-person with parent-requested virtual option	70% hybrid/30% virtual	C	\$8,842.56
STATE:					\$9,189.61

As described in the Methodology section, feedback sessions were conducted across stakeholder groups in Gulfport, Leland, and Marshall County school districts. Participants were recommended by district leaders and offered insights from their vantage points on virtual learning in their schools and districts. Overall, we noted key takeaways from the district feedback sessions in the following areas:

Virtual Instruction

- Districts with stronger technology systems and supports in place already were better prepared but still faced issues.
- Stakeholders all noted improvements by the end of the 2020-21 school year, with several cases of teachers becoming more adept and receiving more support.
- Stakeholders consistently described learning loss and social and emotional challenges for students despite improvements to delivery of instruction.

Resources and Policy

- Stakeholders reported a variety of perspectives about resources and policies, most commonly pointing to online platforms or learning management systems (LMS) as well as improved training being the most helpful.

MS Connects and Technology

- Districts noted significant improvements to reduce the digital divide; while more support will be needed to sustain these improvements, much progress has been made. These results suggest technology in education is here to stay.
- Stakeholders are consistently concerned about the need to sustain technology and connectivity supports for families and many are also concerned about screen time for students and teachers.

Following the district evidence collection and feedback sessions, we conducted the expert peer review process to further examine the findings and elevate examples and strategies that could benefit others statewide. The peers often highlighted specific documents or referenced best practices in their review of district materials. Samples of this are included below. Full responses from expert peer reviewers, along with summary and analysis of these responses for each district, has been provided to the UM project team but is not intended for public reporting to maintain anonymity in peer feedback.

Sample Peer Highlights

Gulfport

- “An investment was clearly made into creating a comprehensive virtual learning program, as evidenced by its Virtual Learning website^{xv} that includes technology resources and curricula as well as a basic explanation of what virtual learning entails.”
- “The school district clearly defined their plan to return to in-person learning. The plan appeared to be well planned and clearly presented to parents and students. The district utilized the Gulfport Summer

Academy to “continue the process of accelerating students that may have fallen behind.”

- “The district had a clear, well-implemented plan in place and the virtual learning program was comprehensive.”
- “Gulfport deserves credit for taking a proactive approach to the logistics of returning to in-person instruction, as its District Restart and Recovery Plan Guidance and Summary includes clear protocols for reduced capacity transportation, social distancing, and other COVID-19 mitigation strategies.”
- “Using weekly newsletters as well as embracing social media posts, physical letters, one-way calling services, and print media ensure that all stakeholders are notified, as opposed to word of mouth or isolated teacher postings.”

Leland

- “It was clear that there was a comprehensive plan created with a lot of attention to details. Participants noted that the plan was thorough and included additional supports such as virtual connection opportunities for families.”
- “I was very impressed that clearly thought was given to student mental health, having mentioned “universal screeners” in their Return to Learn plan and the use of community wraparound services in their Summer 2020 plan.”
- “The positive aspect of LSD’s technology plan is its transparency to student connectivity, making it clear that students could access school WiFi from the parking lots of the buildings and that MiFi would be strategically placed on school buses throughout the district for more equitable access. The district also released lists of educational resources available online to assist EL learners as well as another list in Appendix B of their Distance Learning Plan.”
- “And their Summer Distance Learning Plan even contemplated how to work with families with “No Access Options” and a transition plan.”
- “LSD utilized Twitter to share information and surveys with stakeholders, as well as Facebook and the district website.^{xvi} A complete COVID-19 Parent Handbook was also created to streamline information for non-educators, complete with hyperlinks for additional information.”
- “Simple gestures like Zoom Coffee Fellowship and Coffee & Conversation add a less abrasive touch to a rather trying time.”
- “Leland’s COVID-19 Communication Plan touts the importance of “maintaining a two-way conversation with stakeholders,” a goal which Leland sought to achieve by utilizing a community survey and soliciting community feedback. In the Distance Learning Plan, Leland also makes clear that teachers and counselors are expected to be “available to students and families during work hours,” and that teachers are encouraged to “communicate frequently with parents in a language they understand.”
- “It is a good sign that the first goal of Leland’s

Instructional Plan for virtual instruction was a “comprehensive data collection system [that] will effectively monitor individual student and program progress.”

Marshall County

- “Marshall resumed in-person instruction with a hybrid schedule for the 2020-2021 school year. The Reopening Plan clearly describes this approach, which includes one day a week dedicated to “remediation/enrichment” and “providing equitable services based on IEPs, 504s” – a good sign for prioritizing addressing learning loss.”
- “Teachers make contact daily with virtual students. This year correspondence will include the district website,^{xvii} Remind, SchoolStatus, social media, mass call systems, email, phone calls, etc.”

We evaluated all of the qualitative findings to identify key challenges and barriers as well as innovative practices with virtual learning from the onset of the pandemic through the 2020-21 school year. These are described below.

Key Challenges and Barriers

The main challenges reflected in this study are around the following categories:

- Attendance;
- Instruction;
- Academic policies;
- Student well-being; and
- Virtual and family engagement.

In terms of attendance, districts had to grapple with managing absences when a student needed to quarantine after being exposed to COVID-19. There was also a similar issue for teachers needing to quarantine, coupled with the issue of a lack of substitute teachers. For instruction, teachers found it difficult to manage both virtual and in-person lessons, as the delivery of instruction and managing student needs varied greatly depending on the method of instruction. State leaders also noted challenges with some districts using less common or unsupported LMSs, despite available state support and funding for recommended systems. District feedback session participants and peer reviewers pointed to the importance of strong LMSs for virtual learning.

As for the academic policies, some felt as though the virtual learning option had less rigorous grading and promotion standards than the in-person learning option, with one reviewer even stating, “The virtual option was less rigorous and may have contributed to more learning loss.” Further, it was not clear to expert peers that decision-making was data-informed. Aside from logging attendance and absentee data, there was no evidence of other data collection and how that might inform district-level decision making. One peer reviewer stated, “It is clear that attendance was well tracked. It is unclear what data are collected outside of attendance tracking, and how that data are going to be used.”

Another challenge for districts was around the unique needs of different students. Some felt the needs of

middle schoolers were not adequately addressed. These students are old enough to perhaps not require adult supervision but not as mature as high schoolers in some cases. Other students began to feel screen fatigue when receiving virtual instruction, or struggled with the lack of direct interaction with their friends and peers. One student said, “I had no social interactions during virtual [instruction] except in sports. I felt left out sometimes.” Teachers also struggled in the virtual environment, often finding it difficult to monitor their students’ chats, microphones, and videos.

Disruptions or issues with connectivity often went unreported. This makes it difficult to quantify just how often teachers and students struggled with virtual engagement. One state leader noted, “Connectivity is still the gorilla in the room. There are still students with older devices.”

Families also faced challenges with their child’s virtual environment. There were issues of equity across households, where there was uneven support for students depending on the situation at home. There were also concerns around the responsibility for district-issued devices, with some families reluctant to take or use a device if costs for damage could be incurred. A state leader explained, “Socioeconomic status (SES) made a huge difference in success. Lower SES tends to translate to less understanding of technology and the resources and training that would go into a successful virtual learning rollout.”

Innovative Practices

Despite the challenges, teachers, students, parents, and expert peer reviewers identified innovative practices and creative solutions through virtual learning. We identified innovative practices in the following areas:

- Staffing;
- Training;
- Assignments;
- Scheduling;
- Devices; and
- Family Engagement.

Some districts took an innovative approach to staffing during virtual education by hiring a dedicated virtual education administrator or virtual coordinator. This lifted the burden on teachers managing both in-person and hybrid students. Another effective practice in this area was the use of dedicated virtual lead teachers to help with peer training and support. In terms of training, a creative and flexible solution was to offer virtual access to statewide or district-offered professional development opportunities for teachers. Also effective were “train the teacher” opportunities at the school-level. One peer reviewer emphasized the helpful practice of setting aside dedicated time on given days for teacher training. An educator stated, “We received extensive and helpful professional development around teaching virtually. We also joined after-school review sessions and extra help sessions on Fridays.” The state’s emphasis on high-quality curriculum is important for a virtual environment as well. One educator described the helpful use of virtual binders to track student materials.

Another innovative practice was around scheduling. While many students faced challenges with screen fatigue, districts responded with more flexibility around when students could complete their independent work, often blending live and independent learning. On this subject, an educator noted, “We found success in keeping synchronous Zoom classes as similar to a regular, in-person classroom as possible with bell-ringers, sets, independent practice, etc. Kids needed structure.” There is room for more innovative scheduling in the future; one state leader offered, “If we weren’t in a health crisis a hybrid model might enable things like a student doing an internship for part of the day. We hear a lot from educators wanting to leverage what happened this year for a better future.”

Highlights from the peer reviewers on device distribution noted that students received devices that were already charged and set up for them to log in and begin their virtual instruction. In addition, software was pre-installed on the devices to monitor student activities and screen time. This level of technical support was widely appreciated by study participants and MDE was commended for its robust support. One peer reviewer summed it up by stating, “What MDE was able to accomplish in such a short time was nothing short of a miracle.”

Finally, in terms of family engagement, peer reviewers noted multiple opportunities for students to have virtual touchpoints with their teachers, and to check in with their teachers on a daily basis. The peer reviewers also applauded when districts prioritized student and family access to telehealth.

QUANTITATIVE FINDINGS

Mode of Instructional Delivery

The original intent of this study was to focus on the impact of the mode of instructional delivery on student outcomes in Mississippi through the pandemic. Our goal was to look at individual districts' delivery models – in-person, virtual, or hybrid – alongside student academic and engagement outcomes. Unfortunately, at this time the MDE has advised that district-level instructional delivery data is not reliable.

A look at national research into this topic reveals that students in virtual or hybrid learning saw declines in academic growth compared to those learning fully in person. According to the National Bureau of Economic Research (NBER), declines in student scores on state assessments in Spring 2021 were greater than previous years for districts with less in person instruction. Using data from 12 states, NBER found that math pass rates dropped by 14.2 percentage points overall – but with a 10.1 percentage point smaller dip for districts operating fully in person. The impact on ELA scores was lesser overall, but with an outsized impact on districts with greater populations of Black, Hispanic, and free and reduced price lunch eligible students.^{xviii} A July 2021 CDC report looking at disparities in student access to instructional delivery modes found that in Mississippi, students of color were 15.8% more likely to lack access to any option other than virtual through most of the 2020-21 school year.^{xix}

Analyses of the impact of virtual learning on student outcomes in states like Texas,^{xx} Georgia,^{xxi} and North Carolina^{xxii} also point to the negative effect of remote modes of instruction on as compared to fully in-person learning.

Spring 2020 School Closures and Summer 2020 Enrichment Plans

At the onset of the pandemic, districts were forced to essentially send students and teachers home overnight, with little to no time for planning or providing materials, including technology, for use at home. In May 2020, MDE required districts to submit plans outlining their at-home learning and summer enrichment offerings for 2020. These plans are found here^{xxiii} and required districts to indicate:

- Instructional Delivery During Building Closure: Virtual; Packets/Assignments; or Blended
- Instructional Content During Building Closure: MDE Resources; District Developed/Hosted; or Blended
- Final Course Grade Calculation Method for 2019-20 and Method of Feedback
- Summer Enrichment Delivery: Virtual; Packets/Assignments; or Blended
- Communication with Families
- Transcripts and Senior Transitions
- Assurances for Continued Learning for All Students, Students with Disabilities, and English Language Learners

While many districts indicated in these plans that the instructional delivery method during building closures was a blended approach of both virtual and paper/packet,

the validity of this reporting cannot be verified. For example, our qualitative study showed that some districts relied on paper packets that families could pick up from schools at specified times, or that educators delivered directly in some cases – yet these districts indicated a blended approach on the state form. Further, districts that had strong technology infrastructure in place prior to the pandemic were able to use that technology for some virtual learning, but comprehensive plans were not in place and it is impossible to verify the extent to which virtual learning took place and what that learning entailed.

A closer look at elements of these plans across a group of districts identified as top and bottom performers for student ELA and math proficiency through the pandemic is found here.

2020-21 Instructional Delivery Plans

In August 2020, MDE required districts to submit plans detailing their return-to-school approach for the 2020-21 school year. These details include instructional delivery modes and details, Carnegie Unit Course plans, attendance collection and policies, transportation arrangements, provision of meals, mask and sanitation procedures, health and safety precautions and interventions, extracurricular activities, technology and academic support to families, and communications about closures. These plans are found herexxiv and analysis of key elements for top and bottom performing districts for student academic proficiency is found here.

In addition to these plans, MDE collected instructional delivery information describing how districts operated in the middle of the school year. Mississippi First also conducted a desk review^{xxv} to understand which instructional delivery method districts were using near the middle of the school year. There are many discrepancies in reported instructional delivery between the middle-of-year MDE report and the information Mississippi First found online around the same time.

Nevertheless, it is useful to examine these data to get a sense of how districts planned to operate and which delivery they used in practice. Based on reported information:

- 71 – or a little under half – of school districts reopened for the 2020-21 school year using a delivery method different than what they planned for in the summer.
- 42 districts appear to have planned for and opened in person with a virtual option.
- 14 appear to have planned for and opened using hybrid instruction.
- 16 appear to have planned for and opened with entirely virtual instruction.
- By the middle of the year, 42 districts appear to have been operating in person with a virtual option.
- About 10 more districts appear to have been operating with a hybrid model.
- 6 fewer appear to have been operating virtually.

- 65 districts that reported something different via a MDE survey versus research from Mississippi First.

Examining our case study districts, Gulfport operated in person with a virtual academy for the entirety of the 2020-21 school year. Data for Marshall County and Leland did not match across the various sources, though our qualitative study showed that Marshall County operated with a hybrid model, while Leland planned for hybrid but remained virtual for the whole school year.

Trends

- It appears that nearly half of districts reopened for the 2020-2021 school year using an instructional delivery model different than what they originally planned for in July.
- By the middle of the school year, it appears that the same number of districts were operating in person, with a virtual option available to students.
- A lack of reliable data about instructional delivery limits the capacity of this full quantitative study.

Longitudinal State Data: 2018-19 - 2020-21¹

Enrollment & Attendance

Public school enrollment nationwide has declined throughout the pandemic as some families have sought alternatives to virtual or hybrid learning.^{xxvi} This is also true in Mississippi. In December 2020, State Superintendent Carey Wright spoke about the enrollment trends over time, noting a 5% drop from 2018-19 to 2019-20, a substantial increase in homeschooled students, and state efforts to understand where other unenrolled students have gone.^{xxvii} A New York Times article described a 24% decrease in kindergarten enrollment in the 2020-21 school year in Jackson, MS, where the district offered only a virtual option that fall.^{xxviii}

In addition to enrollment, MDE shared a comparison of the number of days absent per student from 2018-19 through 2020-21, with some troubling trends. While the total number of days absent per student actually dropped

in 2020-21 relative to previous years, the impact on individual students is concerning; 13,231 students missed more than 50 days of school in 2020-21 – an increase of 135% from 2018-19. Over 11,000 more students missed between 18 and 50 days of school over that same time period, as well.^{xxix} It is critical to note here that in 2020-21, large numbers of students faced mandatory quarantines due to COVID-19, which may account for a significant amount of this increase. Regardless of the reason for absence, it will be important to continue studying attendance and engagement trends and elevating opportunities to re-engage students who have faced long periods of disruption from instruction.

State of Mississippi Absences per Student (Excused and Unexcused), 2018-19 to 2020-21

Examining statewide P-12 enrollment data from the 2018-19 school year through 2020-21, we see that overall enrollment dropped from 470,668 students to 442,627 – a difference of 6% in that time span. Enrollment declined across gender as well as racial and ethnic subgroups with two exceptions. The Hispanic or Latino student population increased from 18,762 to 19,443 (4%) and students of Two or More Races increased from 11,729 to 14,757 (26%). While most of the other subgroups experienced an enrollment decrease close to the state average, the decrease in Asian students was lower at 1% and the decrease in American Indian/Alaskan Native was greater at 12%.

Days Absent per Student	2018-19	2019-20	2020-21
<18	397,957	428,410	354,779
18-50	73,124	38,495	84,330
>50	5,638	2,053	13,231
Total	476,719	468,958	452,340

¹ Note: The source for all data charts presented in this section is the Mississippi Department of Education. Agricultural high schools, charter schools, and special state schools (Mississippi School of the Arts; Mississippi School for the Deaf and the Blind; Mississippi School for Mathematics and Science) were not included in this analysis, which focused on traditional public school districts.

State of Mississippi Enrollment Change, 2018-19 to 2020-21

State of MS Subgroup	18-19 Enrollment	20-21 Enrollment	% Change 18-19 to 20-21
All	470668	442627	-6%
Female	230232	216810	-6%
Male	240436	225817	-6%
Black or African American	226491	211217	-7%
White	207166	190886	-8%
Alaskan Native or Native American	1090	958	-12%
Asian	5125	5079	-1%
Hispanic or Latino	18762	19443	4%
Native Hawaiian or Pacific Islander	305	287	-6%
Two or More Races	11729	14757	26%

The charts below show the 10 public school districts with the largest and smallest enrollment declines over the time period from 2018-19 to 2020-21. Comparing these districts to the overall statewide enrollment decline

of 6% during this time, clear outliers emerge. Richton is the only district to lose more than 20% of the student population over the three-year period, and all 10 of these districts lost more than double the state average.

10 Districts with Largest Enrollment Decline, 2018-19 to 2020-21

MS Public School District	18-19 Enrollment	20-21 Enrollment	% Change 18-19 to 20-21
Richton	677	531	-21.57%
Moss Point Separate	1810	1513	-16.41%
West Bolivar Consolidated	1214	1015	-16.39%
Coahoma County	1326	1121	-15.46%
South Delta	808	684	-15.35%
Jackson	23935	20401	-14.76%
Philadelphia	1003	865	-13.76%
Western Line	1965	1698	-13.59%
Greenville	4480	3874	-13.53%
Franklin County	1287	1115	-13.36%

Outliers on the other end of the spectrum include Oxford, which saw the only enrollment increase of over 2% statewide, gaining nearly 5% more students. It is

also notable that six of the 10 districts with the smallest enrollment decline during this time period actually saw enrollment increases.

10 Districts with Smallest Enrollment Decline, 2018-19 to 2020-21

MS Public School District	18-19 Enrollment	20-21 Enrollment	% Change 18-19 to 20-21
Oxford	4323	4528	4.74%
Senatobia Municipal	1644	1676	1.95%
Booneville	1280	1297	1.33%
Chickasaw County	475	479	0.84%
Pontotoc City	3665	3524	0.53%
Tupelo	6994	7005	0.16%
Attala County	1027	1025	-0.19%
Union County	979	940	-0.24%
Enterprise	927	924	-0.32%
Houston	1721	1714	-0.41%

Trends

- The state reports an overall enrollment decline since 2018-19.
- Significantly more students missed 50 or more days of school in 2020-21 compared to 2018-19; this is likely impacted significantly by mandatory quarantines and requires further study.
- The greatest relative decline by student subgroup is for Alaska/Native American students (who make up a small percentage of the total statewide student population) and White students.
- There is an increase in enrollment for Hispanic/Latino and Two or More Races.
- All 10 of the districts with the greatest enrollment decline from 2018-19 to 2020-21 lost more than double the state average.
- Six of the 10 districts with the smallest enrollment decline during this time period actually gained students.

Enrollment, Devices, and Broadband

Mississippi Connects provided unprecedented technology capability and support to school districts, students, and families in 2020. Each district was eligible for financial support to cover broadband connectivity as well as one-to-one device and LMS access.

The charts below show the top and bottom 10 districts in terms of expenditures on devices. District student enrollment data is included for additional context. The asterisk (*) indicates districts that had a 1:1 device initiative prior to the pandemic.^{xxx}

10 Districts with Largest Mississippi Connects Device Expenditures, 2020

Public School District	\$ Spent on Devices	# Devices Purchased	Broadband Fund Distribution	19-20 Student Enrollment
Desoto County	\$19,775,819.37	27,770	\$1,227,482.80	34,752
Harrison County	\$11,026,622.50	16,000	\$760,267.04	14,780
Rankin County*	\$7,754,248.28	14,416	\$848,997.36	19,160
Jackson Public	\$7,450,504.46	17,882	\$1,408,028.31	22,510
Lowndes County*	\$4,471,754.20	5,594	\$915,069.48	5,528
Madison County*	\$4,283,104.02	10,125	\$347,158.17	13,310
Jones County	\$3,855,141.49	9,034	\$1,346,275.83	8,837
Lamar County	\$3,606,301.30	7,329	\$660,352.10	10,718
Vicksburg Warren*	\$3,477,309.88	8,280	\$546,694.83	7,556
Greenville	\$3,319,605.55	4,569	\$302,748.82	4,244

10 Districts with Smallest Mississippi Connects Device Expenditures, 2020

Public School District	\$ Spent on Devices	# Devices Purchased	Broadband Fund Distribution	19-20 Student Enrollment
Holmes Consolidated	0	0	\$498,236.39	2,965
Baldwyn	0	0	\$103,361.43	761
North Panola	\$52,374.19	125	\$191,376.96	1,405
Okolona Separate*	\$119,413.15	285	\$87,184.21	570
Chickasaw County	\$205,306.82	490	\$67,893.70	512
Coffeeville	\$231,767.78	518	\$66,026.45	464
Hollandale	\$271,389.75	575	\$48,306.26	570
Enterprise	\$277,792.69	663	\$169,982.86	937
East Jasper Consolidated	\$293,767.55	635	\$192,591.36	847
Richton	\$326,829.18	740	\$170,428.47	641
Union	\$339,476.70	760	\$108,615.45	987
Attala County	\$351,564.48	747	\$208,997.00	1,046

Not surprisingly, many of the state's largest districts in terms of student enrollment saw the largest overall expenditures on devices, including Desoto County, Harrison County, Rankin County, Jackson Public, Madison County, Jones County, Lamar County, and Vicksburg Warren. Three of these – Rankin, Madison, and Vicksburg Warren – already had a 1:1 device initiative prior to COVID-19. It could be interesting to further explore how these districts leveraged Mississippi Connects to improve device support across the district. In addition, two smaller districts also appear on this top 10 device expenditure list – Lowndes County (which was also 1:1 pre-pandemic) and Greenville. The state might be interested in understanding, for example, why Greenville spent a similar amount for 4,569 devices as Lamar County did for 7,329.

In terms of the bottom 10 spenders on devices, two districts reported zero dollars (Holmes Consolidated and Baldwyn) – but it is possible that this is a reporting error. As expected, most of the rest of this list is comprised of smaller districts in terms of student enrollment.

Trends

- Generally, districts with the largest enrollment had the greatest number of devices purchased and expenditures for broadband, with some notable exceptions for potential investigation.
- Of the top 10 districts in terms of expenditures for devices through Mississippi Connects, four already had a 1:1 device initiative prior to the pandemic.

Student Achievement

Mississippi has made historic gains in student achievement over the last 10 years. According to an analysis by the George W. Bush Institute, National Assessment for Educational Progress (NAEP) proficiency in fourth

grade reading increased 10 percentage points from 2011 to 2019, which was the biggest increase of any state during that time. During this same time, 8th-grade reading proficiency increased by four percentage points, which was among the largest increases among all states, and was also among the largest for Black and Hispanic students. Math proficiency also increased – 14 percentage points for further graders and five percentage points for 8th-graders.^{xxxi}

While there is no NAEP data after 2019 yet, we can use Mississippi's historical improvement on NAEP as context for the impact of the pandemic on achievement. Reflecting worrying nationwide trends,^{xxxii} most Mississippi school districts saw declines in student achievement between 2019 and 2021. In addition to statewide declines in Mississippi Academic Assessment Program (MAAP) math and English language arts (ELA) achievement as described below, kindergarten readiness results were down about five percentage points in 2021 from 36.6% in 2019.^{xxxiii} In addition, according to MDE's analysis, the gap in achievement between low income students and non-low income students increased, even as scores for both groups worsened.^{xxxiv} As we note here, inconsistencies in instructional delivery data make it difficult to link these declines to virtual and hybrid instruction, though other states have begun examining this relationship with concerning preliminary results.^{xxxv}

Changes in English Language Arts Results

According to data from the MAAP administration, statewide ELA proficiency dropped from 41.7% in 2019 to 34.8% in 2021, a 6.9 percentage point dip.^{xxxvi} It is worth noting, however, that ELA also holds a mid-pandemic success story in Mississippi. Eighth-grade ELA was the only subject and grade that did not see a decline in the percentage of students proficient or advanced from 2019 to 2021.^{xxxvii} Mississippi's successful focus on literacy is highlighted

in an analysis from the Foundation for Excellence in Education, which found that students in early grades when this focus began saw greater improvements in reading according to NAEP through 2019, the last year of available data.^{xxxviii} This momentum notwithstanding, the pandemic has taken a toll on student progress in ELA, with some school districts' scores dropping more than others.

The tables below show the top and bottom 10 school districts in terms of percentage point declines in ELA scores between 2019 and 2021, then do the same for math. The charts also include the district student size (overall 2020-21 district enrollment) and location as classified by the relevant regional education service agency (RESA).^{xxxix} These include: Delta Area Association for Improvement of Schools (DAAIS), East MS Center for Educational Development (EMCED), Gulf Coast Education

Initiative Consortium (GCEIC), North MS Education Consortium (NMEC), Southwest MS Education Consortium (SMEC), and Southern Regional Educational Service Agency (S-RESA).

(Data Notes: These tables only look at districts with 200 students or more in order to avoid relatively small changes in the number of students proficient causing an outsized impact on the district's proficiency rate. The charts include total district enrollment as well as MAAP assessment participation. Given that MAAP tested grades are 3-8 and 11, a district with near-universal MAAP participation tests around 55% of their students in a given year. This is why the 2019 and 2021 count figures in the charts below are much smaller than the total district enrollment.)

10 Districts with Largest Declines in ELA Proficiency, 2018-19 to 2020-21

Public School District	19-21 Change in Percent Proficient	20-21 District Enrollment	District Location	2021 Count	2021 Percent Proficient	2021 Count Proficient	2019 Count	2019 Percent Proficient	2019 Count Proficient
Choctaw County	-17.2	1,201	NMEC	653	39.4%	257	691	56.6%	391
Prentiss County	-15.5	2,272	NMEC	1272	38.7%	492	1209	54.2%	655
Coffeeville	-14.7	460	NMEC	221	12.2%	27	268	26.9%	72
Itawamba County	-14.3	3,378	NMEC	1811	31%	561	1884	45.3%	854
Tishomingo County	-13.3	2,850	NMEC	1534	38.1%	584	1651	51.4%	849
East Tallahatchie Consolidated	-13.0	953	DAAIS	522	5.9%	31	588	18.9%	111
Greenville	-12.6	3,874	DAAIS	1830	10.7%	196	2315	23.3%	540
West Point Consolidated	-12.2	2,866	NMEC	1478	19.4%	287	1584	31.6%	501
Lafayette County	-11.8	2,763	NMEC	1494	40.4%	604	1593	52.2%	831
New Albany	-11.5	2,085	NMEC	1093	42.2%	461	1139	53.7%	612

10 Districts with Smallest Declines in ELA Proficiency, 2018-19 to 2020-21

Public School District	19-21 Change in Percent Proficient	20-21 District Enrollment	District Location	2021 Count	2021 Percent Proficient	2021 Count Proficient	2019 Count	2019 Percent Proficient	2019 Count Proficient
Ocean Springs	+0.3	5,739	GCEIC	3112	58.7%	1,827	3240	58.4%	1,892
Richton	-0.2	531	S-RESA	313	31.6%	99	371	31.8%	118
Neshoba County	-0.7	2,959	EMCED	1546	45.7%	707	1743	46.4%	809
Moss Point	-1.2	1,513	GCEIC	849	21.8%	185	944	23%	217
George County	-1.6	3,843	GCEIC	2031	42.4%	861	2144	44%	944
Starkville-Oktibbeha Consolidated	-1.7	4,906	NMEC	2578	33%	851	2731	34.7%	947
Wayne County	-2.5	2,927	S-RESA	1555	28.3%	440	1737	30.8%	535
Amite County	-2.6	833	S-RESA	471	15.9%	75	503	18.5%	93
Bay St Louis Waveland	-2.8	1,676	GCEIC	870	43.4%	378	988	46.2%	456
Pass Christian	-2.9	1,991	GCEIC	1020	51.4%	524	1128	54.3%	612

Further reinforcing troubling trends regarding the pandemic's impact on academic outcomes for low income students, the districts that saw the steepest declines in ELA tended to be those with schools that have a high proportion of students who receive free or reduced price lunch. The federal Title I program, which provides free or reduced price lunch to all students who apply and whose family income is 185% of the poverty line or less, is typically the proxy used in education to understand the number of low income students at a school.⁴¹ For example, all of Greenville Public School's 10 campuses serve entirely low income students as measured by free or reduced price lunch eligibility. East Tallahatchie's three campuses range from 76% to 94% low income. Some districts that serve a relatively low proportion of low income students saw some large declines as well, however. All three campuses in Lafayette County serve around 50% low income students, yet declines were similar to Greenville's.

Unsurprisingly, some districts with the smallest declines or even improvements in ELA serve a smaller

proportion of low income students. Ocean Springs' schools all serve between 40 and 50% low income students — among the smallest shares of low income students in the state. Richton, Neshoba County, and Starkville-Oktibbeha are all districts with varying levels of free or reduced price lunch eligibility at their campuses but generally not among the highest in the state.

Moss Point Separate School District, which serves almost entirely Title I students, did not drop significantly in overall ELA proficiency, though proficiency was already quite low. George County and Wayne County are large districts that held steady in their proficiency rates in ELA, which is potentially an accomplishment in the face of the challenge of last year, especially for Wayne County where most campuses serve at least 90% low income students.

Changes in Mathematics Results

Across Mississippi, the decline in proficiency was larger in MAAP math, which again reflects national trends. Math proficiency fell from 47.3% students proficient in 2019 to 34.8% in 2021, a 12.5 percentage point drop.

10 Districts with Largest Declines in Math Proficiency, 2018-19 to 2020-21

Public School District	19-21 Change in Percent Proficient	20-21 District Enrollment	District Location	2021 Count	2021 Percent Proficient	2021 Count Proficient	2019 Count	2019 Percent Proficient	2019 Count Proficient
North Panola	-35.1	1,364	DAAIS	650	2.2%	14	746	37.3%	278
Baldwyn	-33.7	753	NMEC	407	20.9%	85	403	54.6%	220
Coffeeville	-30.4	460	NMEC	229	4.4%	10	273	34.8%	95
West Tallahatchie	-27.1	606	DAAIS	270	3%	8	402	30.1%	121
Tunica County	-26.1	1,776	DAAIS	909	12.8%	116	980	38.9%	381
Sunflower County Consolidated	-26.0	3,149	DAAIS	1816	7.5%	136	1924	33.5%	644
West Point Consolidated	-25.8	2,866	NMEC	1454	13.9%	202	1639	39.7%	651
Newton Municipal	-24.4	1,598	EMCED	465	19.4%	90	500	43.8%	219
Quitman County	-24.0	894	NMEC	464	15.3%	71	504	39.3%	198
Greenville	-23.9	3,874	DAAIS	1884	3.3%	62	2307	27.2%	628

10 Districts with Smallest Declines in Math Proficiency, 2018-19 to 2020-21

Public School District	19-21 Change in Percent Proficient	20-21 District Enrollment	District Location	2021 Count	2021 Percent Proficient	2021 Count Proficient	2019 Count	2019 Percent Proficient	2019 Count Proficient
Amite County	+6.0	833	S-RESA	472	19.9%	94	505	13.9%	70
Bay St Louis Waveland	+2.9	1,676	GCEIC	911	50.6%	461	1025	47.7%	489
Neshoba County	+2.7	2,959	EMCED	1649	58.4%	963	1732	55.7%	965
George County	+0.7	3,843	GCEIC	2032	45.3%	920	2134	44.6%	952
Monroe County	-0.6	2,095	NMEC	1097	55.1%	604	1243	55.7%	692
Winona-Montgomery Consolidated	-2.5	1,201	DAAIS	622	29.6%	184	694	32.1%	223
Pascagoula Gautier	-3.6	6,508	GCEIC	3519	40%	1,408	3679	43.6%	1,604
Water Valley	-4.0	1,007	NMEC	576	29.5%	170	546	33.5%	183
Walthall County	-4.1	1,677	S-RESA	917	21.6%	198	974	25.7%	250
Ocean Springs	-4.1	5,739	GCEIC	3090	64.4%	1,990	3210	68.5%	2,198

Again, the 10 districts with the steepest declines in math proficiency were also more likely to have a high percentage of low income students. Unlike what we see in ELA results, some districts moved from math proficiency rates in the 30%-40% range in 2019 to almost no students proficient at all in 2021. North Panola serves almost entirely low income students, as do Coffeeville and Tunica

County. On the other hand, West Tallahatchie is middle of the road when it comes to its low income student percentage (68% at one campus and 49% at the other), yet dropped from 30% proficient to 3% proficient in math.

And again, while Mississippi school districts that serve relatively low percentages of low income students tended to be found on the top 10 smallest decline list, some

predominantly low income districts also managed to stay the course. Most of Pascagoula Gautier’s campuses hover in the 70%-90% range in their low income student percentage, yet math proficiency only dropped a few percentage points and did not go below 40%. All but one of Walthall County’s five campuses serve 100% low income students and the district did not see a large drop, though proficiency was already at the low end.

Analysis of Top and Bottom Performing District Spring & Summer 2020 and 2020-21 School Year Plans

Using the information described above, we compared the district plans submitted to MDE for the 10 districts with the largest and smallest declines in ELA, and the 10 districts with the largest and smallest declines in math, respectively, to note any differences or commonalities across those plans. We closely examined the plans to note differences in the strategies detailed, such as the types of instructional content delivered and method of delivery, final course calculation methods, summer learning methods, and communication and participation strategies. Of note, the greatest variance in district plans existed with the final course calculation methods and the communication and participation strategies. Most plans, irrespective of their performance ranking, used similar strategies for instructional delivery and instructional content. One main difference between the top performing and lower performing districts was how descriptive the plans were. For both top performing ELA and math districts, plans were more likely to include lengthy descriptions of actions, systems used, and issues encountered with data validity instead of just marking a multiple choice option.

Among the 10 districts with the largest decline in ELA:

- All used blended instructional delivery methods, combining online, distance learning, remote, and e-learning methods as well as packets and assignments.
- During school building closure, all but one (West Point) used a combination of MDE resources as well as district-selected online or hybrid content and make-and-take instructional packets and resources. West Point noted that they did not use MDE resources.
- The districts varied widely across how they calculated the final course grade for the 2019-2020 school year.
- For summer enrichment, most districts chose a blend of distance/virtual/e-learning and remote methods, along with packets and assignments. However, one district (Greenville) chose to provide on-site learning for students who require extensive learning needs as well as at-home learning packets.
- In terms of communication and participation, the districts chose a wide variety of means of communication including letters to families, social media posts, text messages to families, and emails to families.

Among the 10 districts with the smallest decline in ELA:

- Similar to the 10 with the largest decline noted above, most districts chose a blended method of instructional delivery. There were, however, two districts that chose alternative methods of delivery. For example, Pass Christian chose to allow in-person, small group instruction as the CDC and state guidelines allowed.
- These districts were more descriptive than those with the largest declines in ELA in naming resources they

used outside of MDE resources and district-developed content. For example, one district outlined how teachers utilized Google classroom and Edmentum to deliver content. Another district utilized Curriculum Associates as well as the Mississippi Public Broadcasting network to reach students.

- These 10 districts also mostly chose to average the first, second, and third nine-week grades with the fourth nine-week assignments grade to calculate the final grade.
- These districts were more descriptive than the 10 with the largest ELA decline in their plans around summer learning and enrichment resources provided to students. Some districts named credit recovery options, individual learning plans, Edmentum, targeted support to students in the bottom 25% during the summer, Choice Board activities available online, and making behavioral specialists available, to name a few.
- There was a similar broad use of communication and participation methods, but these districts were more descriptive on other methods of contact they utilized including the district website, surveys, and phone calls. Ocean Springs, for example, established a Learn from Home website to house all information and resources for parents and students.

Among the 10 districts with the largest decline in math:

- All used a blended combination of instructional delivery.
- In terms of instructional content, most of these districts chose a combination of MDE resources and individual district developed resources. However, three districts chose to forego the MDE resources. There was minimal description across all plans for this section.
- There was a wide variety of final course grade calculations.
- For summer learning and enrichment, most of the districts chose a combination of distance methods as well as packets and assignments. There was very little variance in this section. However, one district (Greenville) chose an on-site in-person learning option for students. Many of these districts detailed summer learning and enrichment opportunities and many utilized extended school year services.
- Similar to the ELA top and bottom performing districts, there was a wide variety of communication and participation methods used. In addition, districts were descriptive about which additional resources they used outside of the multiple choice options provided. These included, for example, iReady and Edgenuity programs, as well as DOJO classroom and Remind software to keep in contact with students and parents.

Among the 10 districts with the smallest decline in math:

- There was generally more descriptive information in the plans outside of the multiple choice selections. Most districts chose a combination of virtual and portfolio or project based instructional delivery methods during school closures. One district (Ocean Springs) noted that they also provided Wi-Fi access and hotspots to students.
- Most of these districts (8) opted to combine methods of providing instructional content. Only 2 districts opted not to use any MDE resources.

- For the final course grade calculation, these districts varied widely in their chosen method. Many districts provided additional comments on this section of their plans, noting that video conferences, Zoom, Google Meet or Google Classroom were used to communicate grading information with parents. Furthermore, districts noted issues with the data they were collecting on students, and went in depth on accountability measures or kindergarten promotion guidelines.
- For summer learning and enrichment, most districts chose a combination of virtual and project-based learning methods. Districts were very forthcoming about their actions in this section of their plans, noting the use of hybrid or face-to-face summer instruction, a rotating instructional system based on student’s skill needs, as well as the various online platforms used. Districts also detailed how the summer learning and enrichment plans varied from grade to grade in their plans.
- Lastly, similar to all other districts regardless of performance, these districts used a wide variety of communication and participation strategies. These included different phone and email tools to communicate with parents, outreach strategies varying by grade level, mass calling strategies, and special learn from home websites. One district described a weekly principal memo distributed to parents and students. Overall, these districts were much more descriptive in their plans.

This plan analysis closely aligns with the major themes identified in our Virtual Learning Study Expert Peer Review Analysis. It was clear where districts were explicit in the resources they were providing for instructional delivery, communications and outreach, and summer programming. The only area of the analysis that was not as clearly reflected in the district plans was data-driven decision making. Only one district (Winona-Montgomery)

mentioned the validity of the data they collected and accountability for districts based on the data.

Trends

- Over the last decade, Mississippi has made historic gains in student achievement, especially in NAEP reading scores. However, the pandemic has caused many Mississippi school districts to see declines in student achievement (following national trends).
- Districts with the steepest declines tended to be districts with a high proportion of low income students (using percent Title I as a proxy for income), and the opposite is generally true for districts with the least declines.
- Reflecting national trends, Mississippi saw a larger decline in proficiency in MAAP math.

Student Participation

Another important element for consideration in the impact of the pandemic on students is participation in annual state testing. Mississippi bucked the national trend of much lower participation in state assessments in 2021, boasting an overall participation rate of 96.9%, which is in line with previous years.^{xii} The following sections examine the top and bottom 10 districts in terms of changes in participation rates for state-required MAAP exams from 2018-19 through 2020-21. These findings may provide more areas for follow-up and support by demonstrating an outsized impact – either positive or negative – on a particular group or groups of students.

MAAP Participation Trends

In addition to examining MAAP achievement trends, a look at MAAP participation rate growth and decline across Mississippi districts reveals some points for consideration.

10 Districts with Largest Decline in MAAP ELA Participation from 18-19 to 20-21

Public School District	Percentage Point Change (18-19 to 20-21)	18-19 ELA Participation Rate	20-21 ELA Participation Rate	18-19 Enrollment	20-21 Enrollment	% Enrollment Change (18-19 to 20-21)
West Tallahatchie	-16.84	97.82	80.98	695	606	-13%
Greenville	-11.32	95.66	84.34	4480	3874	-14%
North Panola	-8.83	98.99	90.16	1393	1364	-2%
Tunica County	-8.25	99.24	90.99	1975	1776	-10%
West Bolivar Consolidated	-7.77	99.72	91.95	1214	1015	-16%
East Tallahatchie Consolidated	-7.21	99.84	92.63	1084	953	-12%
Canton	-7.05	99.11	92.06	3391	3207	-5%
Natchez-Adams	-6.1	98.06	91.96	3193	2875	-10%
Coffeeville	-5.6	96.92	91.32	502	460	-8%
Hollandale	-5.44	96	90.56	604	534	-12%
State of MS	-0.76	98.07	97.31	470668	442627	-6%

As shown in the chart above, West Tallahatchie, Greenville, North Panola, and Tunica school districts all went from over 95% of eligible student participation in

2018-19 to losing nearly 10 percentage points or more. This stands in stark contrast to the statewide percentage point change of only -0.76 during that time.

10 Districts with Smallest Decline in MAAP ELA Participation from 18-19 to 20-21

Public School District	Percentage Point Change (18-19 to 20-21)	18-19 ELA Participation Rate	20-21 ELA Participation Rate	18-19 Enrollment	20-21 Enrollment	% Enrollment Change (18-19 to 20-21)
George County	1.34	95.2	96.54	4116	3843	-7%
Quitman County	0.64	97.83	98.47	1017	894	-12%
Jefferson County	0.63	97.25	97.88	1159	1089	-6%
Prentiss County	0.44	98.02	98.46	2416	2272	-6%
Benton County	0.22	98.6	98.82	1098	954	-13%
Greene County	0.21	99.52	99.73	1875	1685	-10%
North Pike	0.21	98.45	98.66	2440	2205	-10%
Booneville	-0.04	97.46	97.42	1280	1297	1%
Alcorn	-0.05	98.36	98.31	3220	3146	-2%
Hazlehurst City	-0.11	97.31	97.2	1496	1453	-3%
State of MS	-0.76	98.07	97.31	470668	442627	-6%

Districts with the smallest decline in MAAP ELA participation over this time period saw small percentage point changes overall. George County saw the biggest increase – growing from a 95.2% participation rate in 2018-19 to 96.54% in 2020-21. Four of these 10 districts

saw enrollment declines much larger than the state average during this time period, despite posting gains in MAAP ELA participation. Further exploration could reveal how all of these districts maintained the fidelity of the assessment system during pandemic challenges.

10 Districts with Largest Decline in MAAP Math Participation from 18-19 to 20-21

Public School District	Percentage Point Change (18-19 to 20-21)	18-19 Math Participation Rate	20-21 Math Participation Rate	18-19 Enrollment	20-21 Enrollment	% Enrollment Change (18-19 to 20-21)
West Tallahatchie	-17.99	98.05	80.06	695	606	-13%
Greenville	-17.61	98.56	80.95	4480	3874	-14%
Tunica County	-10.2	99.21	89.01	1975	1776	-10%
North Panola	-9.18	98.7	89.52	1393	1364	-2%
Natchez-Adams	-8.4	98.47	90.07	3193	2875	-10%
West Bolivar Consolidated	-7.66	100	92.34	1214	1015	-16%
Canton Public	-7.12	98.62	91.5	3391	3207	-5%
East Tallahatchie Consolidated	-6.94	99.67	92.73	1084	953	-12%
Clarksdale Municipal	-6	98.89	92.89	2342	2237	-4%
Jackson	-5.74	98.12	92.38	23935	20401	-15%
State of MS	-1.67	98.73	97.06	470668	442627	-6%

As with districts experiencing the greatest decline in MAAP ELA participation, those with the steepest MAAP math participation drops are well outside the statewide

percentage point change of -1.67. West Tallahatchie and Greenville are the most significant outliers.

10 Districts with Smallest Decline in MAAP Math Participation from 18-19 to 20-21

Public School District	Percentage Point Change (18- 19 to 20-21)	18-19 Math Participation Rate	20-21 Math Participation Rate	18-19 Enrollment	20-21 Enrollment	% Enrollment Change (18- 19 to 20-21)
Corinth	5.9	88.69	94.59	2645	2522	-5%
Gulfport	1.46	96.12	97.58	6487	6367	-2%
Yazoo City Municipal	1.06	98.21	99.27	2422	2161	-11%
George County	1.01	97.36	98.37	4116	3843	-7%
Baldwyn	0.48	99.04	99.52	757	753	-1%
Hancock County	0.45	98.17	98.62	4416	4146	-6%
Pass Christian	0.41	98.64	99.05	2053	1991	-3%
Copiah County	0.4	99.45	99.85	2535	2275	-10%
Prentiss County	0.38	98.18	98.56	2416	2272	-6%
Calhoun County	0.38	98.94	99.32	2500	2256	-10%
State of MS	-1.67	98.73	97.06	470668	442627	-6%

As with ELA participation trends, a few of the 10 districts with the smallest decline in MAAP math participation saw enrollment declines much larger than the state average during this time period.

Graduation Rate Trends

A look at the top 10 districts (excluding special schools and those impacted by consolidation) in terms of high school graduation rates in 2018-19^{xliii} and in 2020-21^{xliiii} shows changes over time. Overall, the state of Mississippi improved from a graduation rate of 84% in 2018-19 to 87.7% in 2020-21. Among top performing districts

in 2018-19, we see improvements through 2020-21 for seven and declines for three. Columbia posted the fourth-highest graduation rates statewide in 2018-19 at 94.3%, but fell out of the top 10 list in 2020-21 at 91%. And while Lamar County, Holly Springs, and Madison County all improved, their most recent graduation rates were not high enough to make the top 10 last year.

Districts that did not appear in the top 10 in 2018-19 but rose to the top in 2020-21 include Monroe County, Quitman County, Petal, Long Beach, Okolona, and Calhoun County. Monroe County jumped from 89.9% to 97.4%.

10 Districts with Highest Graduation Rates, 2018-19 and 2020-21

Top 10 Graduation Rates, 2018-19		Top 10 Graduation Rates, 2020-21	
Enterprise	95.8%	Monroe County	97.4%
Corinth	94.8%	Poplarville Separate	96.1%
Poplarville Separate	94.7%	Enterprise	95.9%
Columbia	94.3%	Quitman County	95.6%
Pearl	94.1%	Pearl	95.5%
Lamar County	92.9%	Petal	95.1%
Lowndes	91.9%	Long Beach & Okolona	94.2%
Holly Springs	91.8%		
Madison County	91.3%	Calhoun County, Corinth, & Lowndes	93.3%
Marion County	91.1%		

Some of the lowest performing districts for graduation rates (excluding those impacted by consolidation) also

improved over the time period from 2018-19 to 2020-21.

10 Districts with Lowest Graduation Rates, 2018-19 and 2020-21

Bottom 10 Graduation Rates, 2018-19		Bottom 10 Graduation Rates, 2020-21	
Coahoma County	65.2%	Grenada & Columbus Municipal	76%
McComb	67.8%		
Walthall County	68.2%	Franklin County	77.6%
Yazoo City	70.3%	McComb	78.3%
Attala County	70.7%	Greenville	78.4%
Greenville	70.8%	Moss Point	78.5%
Hattiesburg & Philadelphia	71.6%	Jackson	78.8%
		Wilkinson	79.1%
Aberdeen	72.1%	Philadelphia	79.3%
Vicksburg Warren	72.2%	Canton	79.5%

Greenville appears on the bottom 10 list for both school years for graduation rate and on the bottom 10 list for both ELA and math student proficiency drops from 2018-19 to 2020-21. This suggests further exploration of potential supports that could benefit Greenville students.

While Coahoma County posted the lowest district-wide graduation rate in 2018-19, the district does not appear in the bottom 10 list at all in 2020-21. In fact, the district improved from a 65.2% graduation rate in 2018-19 to a rate of 80.9% in 2020-21. However, this district saw declines in student academic performance in nearly all subjects during this time, suggesting the need to understand why academic performance declined while graduation rates increased. On the other end, the three districts with the lowest overall graduation rates in 2020-21 did not appear on the bottom 10 list in 2018-19. Grenada, Columbus Municipal, and Franklin County districts all saw declines in graduation rates and in student academic performance from 2018-19 to 2020-21.

Trends

- Mississippi bucked the national trend of much lower participation in state assessments in 2021, boasting an overall participation rate in line with previous years.

- Four districts all went from over 95% eligible student participation in 2018-19 to losing nearly 10 percentage points or more. This stands in stark contrast to the statewide percentage point change of only -0.76 during that time.
- Four districts saw enrollment declines much larger than the state average from 2018-19 to 2020-21, despite posting leading gains in MAAP ELA participation.
- Three districts saw enrollment declines much larger than the state average during this time period, despite posting leading gains in MAAP math participation.
- Districts that saw large declines in MAAP participation generally saw greater declines in math participation than in ELA.
- Many of the same districts that saw the largest declines in MAAP participation also saw the largest declines in MAAP proficiency statewide.
- Of the top and bottom 10 performing districts for high school graduation rate in 2018-19 and in 2020-21, several showed improvements over that time period while others showed declines.

INITIAL POLICY RECOMMENDATIONS

The following initial policy recommendations are informed by the research conducted and data analyzed for this project to date as well as an examination of relevant news and research from across Mississippi and the country. The initial recommendations outlined below were also informed by a panel of Mississippi leaders (representing parent, educator, school and district administrator, school board member, educational advocacy, philanthropy, and policy perspectives – see Appendix A) in late summer/early fall 2021. These recommendations will be refined and revised through the course of the complete study.

Themes for Policymakers

The qualitative study, peer review, and initial quantitative analysis surfaced several key themes policymakers should consider when examining options for virtual learning and education recovery post-pandemic:

- A need to focus on students most impacted according to initial evidence: Initial available data shows that the pandemic affected students from low-income families most of all. Policies that are designed to help students recover from the tumult of school closures and virtual learning must benefit economically disadvantaged students and ideally benefit them most of all.
- The need and potential for cross-sector collaboration: MS Connects is a strong example of state leaders from all sectors (government, education, business, technology, philanthropy, advocacy) coming together to provide equitable access to technology supports quickly. This example illustrates that such an effort can be successfully executed in Mississippi around a common goal and provides a model for future collaborative activities.
- The importance of effective communication and dissemination: Resources, programs, and other supports – including mental health supports – must be shared through multiple channels (state and district vehicles, websites, social media, news media) and with strategic consideration of a variety of audiences (educators, students, families, community-based support providers, leaders).
- The critical role of high-quality curriculum and training: Proven curriculum and aligned educator training is the foundation of any effective instructional strategy – in person or virtual. Cohort models and the expansion and coordination of existing groups (MDE Teacher/Principal/Student Advisory Councils, Digital Learning Coaches) can extend the reach of quality instruction.
- Identification of ongoing funding to support education technology and other innovations: Technology in education, used appropriately in in-person as well as remote settings, is here to stay; districts will need continued support for devices and connectivity (especially considering the rate of technological advances), as well as educator and family training and support.
- Support for continued and coordinated data collection

and research: The impacts of the pandemic on education will be felt for many years to come and the investment of resources and time for educational technology should be studied. Consistent, comparable data collection and sharing will help district and state leaders make informed decisions about future efforts.

Recommendations

State Advisory Task Force and Regional Acceleration Hubs: Provide coordinated state and regional partnerships to broaden awareness of and support for education recovery.

- **Building on the success of the coordinated effort to execute MS Connects, the existence of several statewide and regional cohorts, and the need for continued collaboration around pandemic recovery, the state could:**

1. Create a State Advisory Task Force to Advance Education. This could include students, families, educators, and local and state leaders, drawing from existing groups such as MDE Advisory Councils, Digital Learning Coaches, Technical Advisory Committee, and others. The group could be convened quarterly to examine data on acceleration efforts and identify implications for state and district actions. The group could also lead efforts to explore sustainability of funding for evidence-based best practices. ESSER funding could be used to support the short-term planning and collaboration required to identify sustainable, long-term funding (such as federal ESEA, IDEA, Perkins, and WIOA funds) for education technology and training.
2. Support Regional Acceleration Hubs for collaboration across organizations by geographical locations. This would allow for coordination of resources from existing community organizations, government, philanthropy, advocacy, business, and other groups and extend the reach of services. Hubs could be led by representatives of these organizations who could help to match local needs with regional offerings. This could allow the state to extend the reach of existing efforts such as the Digital Learning Coaches, who are already serving regional areas, opportunities like the state Regional Family Literacy Nights,^{xiv} and growing efforts to support telehealth, virtual learning options, and other needs. One leader from each Regional Acceleration Hub could participate in the Task Force recommended above. Existing MS Regional Education Service Agencies^{xlv} could be leveraged and/or expanded to support these efforts.

Virtual Learning

Support the state-level strategy for high-quality virtual learning that is accessible to all students in Mississippi.

Programming

The state has already invested considerable resources into virtual learning and should work to ensure that the best innovations from those investments produce ongoing public education opportunities for students and families. There is evidence from across the country that some students who choose a full-time virtual education option, under the right conditions and when that option is of high quality, can be successful. However, this research project has not yet yielded enough evidence to recommend that a particular existing full-time option should be scaled in Mississippi. Because each district was able to determine its own pandemic response for the 2020-21 school year, virtual options varied widely. That said, this study has yielded information on what has – and could – go well. In the short term, the state should consider the following, while continuing to gather evidence on program effectiveness to inform future decisions:

1. Continue to review and approve district-run virtual options such as the Gulfport Virtual Academy^{xlvi} on a yearly basis as long as such options are desired. Conditions for approval should include (but not be limited to):
 - ▶ Evidence of demand for this option adequate to necessitate the staffing and other support described below.
 - ▶ Ongoing data collection and review of virtual student engagement (attendance, enrollment) and learning outcomes to understand the efficacy of this offering, including analysis of all relevant subgroup populations.
 - ▶ Support to ensure participating families consistently have adequate devices and connectivity.
 - ▶ A plan for students with special needs or accommodations.
 - ▶ Dedicated staff for virtual instruction.
 - ▶ Clear expectations for attendance, balance between synchronous and asynchronous instruction, grading, and student and teacher schedules (e.g., how much time a day are they online, how much time is dedicated to homework, extra-curricular activities, professional development, teacher interventions).
 - ▶ Clarity on how often and the means by which teachers and families have regular check-ins and how parents can reach teachers individually, as well as any necessary training for families to support virtual instruction.
 - ▶ High-quality virtual curriculum and training that includes a focus on social and emotional learning (SEL).
 - ▶ An assessment policy that allows for real-time education data but mitigates the potential for cheating (see below).
 - ▶ A vision for program sustainability that is responsive to changing conditions and allows for adaptations.
2. Continue and consider expanding “ala carte” access to virtual programming for courses students can’t access otherwise through their school district.
 - ▶ The state could expand its review and vetting of online courses^{xlvi} and programs like the MSU-RCU offerings^{xlvii} and UM High School,^{xlix} and extend these opportunities to more students given new investments in technology via Regional Acceleration Hubs.
 - ▶ From an equity perspective, the state could collect and analyze data about access to and uptake with online courses to identify gaps and any relevant interventions to ensure all students can benefit from quality options (as recommended in the Mississippi First Future of Schools Policy Vision).^l
3. Begin to develop a full-time state-run virtual learning option, either through a state-affiliated nonprofit or a vendor through an RFP process. However, the state should carefully consider some critical questions about this option:
 - ▶ o Can the state gather reliable data about the demand for virtual learning across the state to create a solid understanding of which families in which regions seek this option, and why? It will be important to understand where and how health and safety issues drive a preference for virtual learning as well as new possibilities opened by this delivery method, such as mental and social emotional wellness factors, the ability to work or do internships on a flexible schedule, etc. Further, it is important to understand the impact of virtual learning on student outcomes to better understand conditions for success.
 - ▶ o How would district enrollment and accountability work for students opting into a state virtual learning program? Could students remain enrolled in their home district and participate in extracurricular activities and other supports while receiving instruction from a separate virtual program, including the possibility of joining an existing, state-approved district-run program? What would this mean for per pupil funding, promotion and graduation, and district grades?
 - ▶ o How can the state establish an inclusive, transparent process to develop and vet a quality virtual program in partnership with Mississippi educators and other experts? Could the recommended Advisory Task Force be leveraged?

Staffing:

Teachers should not simultaneously teach both in-person students (i.e., in a classroom) and students participating remotely in a virtual program. Instead, virtual options should be staffed with dedicated educators who specialize in and focus on virtual instruction. Where program size necessitates, a dedicated administrator should oversee virtual learning programs.

o In the case of extended absences and/or quarantines for individual students, the state should continue to

allow flexibility for teachers to instruct their students virtually for a limited period of time until they return to the classroom.

High-Quality Curriculum & Training

Mississippi is leading the country with its investment in high-quality instructional materials. The state should expand upon this effort to support virtual learning in several ways.

1. Highlight high-quality virtual materials within Mississippi Instructional Materials Matter.ⁱⁱ This robust resource could elevate high-quality practices for a virtual environment in addition to those it already identifies.
2. Expand and promote targeted professional learning opportunities for teachers to support their mastery in using high-quality content across multiple instructional delivery methods. The MDE Office of Professional Development provides access to synchronous and asynchronous training opportunities. All districts can access these sessions, with priority and specialized sessions and coaching provided to those most in need. MS Connects offers a Professional Development and Resources Hubⁱⁱⁱ specifically focused on technology and virtual learning. These resources can be connected to the Materials Matter site and shared via Regional Acceleration Hubs.
3. Building upon the Mississippi State Plan for ESSER Funds,ⁱⁱⁱⁱ prioritize adapting SEL curriculum to virtual environments. The SEL standards,^{liv} accompanying professional development, and associated resources^{lv} should complement other vetted high-quality virtual materials.

Assessment

The integrity of academic assessments may be compromised if all are administered remotely. Virtual programs should implement policies that allow for “spot checking” student assessment results to identify outliers. Mississippi^{vi} used an in-person approach for state assessments in spring of 2021, even for virtual students. This practice illustrates that districts can bring virtual students to an in-person setting. In the future, this exercise can also be applied to other, more formative assessments. The state could:

1. Require that assessments for virtual students occur in-person periodically. For example, a virtual program administering formative assessments could require each student to complete them inside a school building under supervision at least twice per year. Timing could be staggered for the entire population of students so that only a small percentage of virtual students are in the building on any given week or month.
2. Leverage local community organizations to provide additional options for families uncomfortable with testing in a school facility.
3. Consult with health officials on plans for in-person testing as long as the pandemic or other public health concerns are present.

Learning Acceleration

Focus on the continued academic advancement of all students by meeting them where they are.

- The significant disruptions to education caused by COVID will have lasting effects on student progress, and acceleration efforts will be necessary for the foreseeable future. For at least Summer 2022 and the 2022-23 school year, the state could:
 1. Provide and communicate access to vetted tutoring and credit recovery programs with subsidized costs for low-income families. This effort could include in-person and virtual options to expand the reach of quality programs and instructors and Mississippi has already invested in programs that could be expanded and/or replicated. Mission Acceleration^{vii} is a tutoring pilot program funded by a GEER grant. The Mississippi Teacher Corps Virtual Summer School/Credit Recovery^{viii} provided a virtual option in Summer 2020 and virtual and in-person opportunities in Summer 2021, with the added benefit of offering training for teachers in critical needs districts.
 2. Provide guidance and/or resources to before- and after-school child care providers and other community support organizations to better equip them to support homework and learning outside of school.
 3. Maintain appropriate technology, connectivity, and training supports for these programs through MS Connects (see below).
 4. Continue and expand data collection efforts to understand which groups of students are most in need of support, including looking at trends by instructional delivery method, geography, demography, etc.

District, Educator, and Family Support for Technology

Ensure adequate and ongoing infrastructure and training for the use of technology in education.

- Mississippi has made tremendous progress in closing the digital divide and bringing education technology to students and families. However, more and ongoing efforts are needed to realize the full potential of this work – especially supporting district infrastructure and home connectivity.
- One of the limitations with rolling out MS Connects for the 2020-21 school year had to do with districts using old or insufficient learning management systems (LMSs). Districts using these LMSs have done so likely because of scarcity of resources (time or funding) or lack of IT or education technology expertise locally. Other limitations were caused by inconsistent educator expertise and training and a lack of reliable data on technology use in schools. The state could support district LMS implementation by:
 - Providing a list of independently reviewed, highly-rated LMS options according to transparent criteria (virtual learning platform, access to telehealth, etc.).

- Requiring that districts move to a vetted LMS by a certain time or apply for a waiver or exception.
- Hiring state-level experts who can help with district LMS implementation when districts indicate that they do not have the capacity in house.
- Conduct a program evaluation study on the impact of the MS Connects Digital Learning Coaches^{lix} program and other digital learning supports such as Cohort Coaching, the Digital Teacher Academy, Instructional Technologies, and Digital Learning Resources to expand upon successes and further the reach of effective efforts statewide.
- Consider adding a navigator component to assign adult mentors/guides to students and families to assist with effectively using technology to support education.
- Consider adding guidance and best practices around virtual professional learning opportunities and virtual home-school conferences and other family supports to expand access.
- Continue and expand a consistent statewide data system for tracking the use of devices and reliability of internet connectivity in districts and homes (where virtual learning is extended to home).
- Create an intergovernmental working group of leaders from relevant state agencies (MDE, MS Department of Information Technology Services, MS Public Service Commission) focused on internet access to share data, resources, and strategies with families.

Ongoing Research to Drive Data-Informed Strategies

Continue to document and analyze the impact of the pandemic on student learning and identify evidence-based interventions.

- To fully understand the impacts of several years of disrupted learning, ongoing and consistent data collection and analysis are needed. Given the likelihood

for long-term impacts on student progress, it is necessary to establish consistent measures and research tactics to learn as much as possible and inform course corrections over time. The state could:

- Create a longitudinal study of P-12 student cohorts comparing annual progress through at least 2026. Where possible, include factors such as the district instructional delivery model (virtual, in-person, hybrid), use of state-vetted high-quality instructional materials, access to Digital Learning Coaches, etc. This will necessitate identifying consistent reporting methods and infrastructure to ensure comparable data across districts.
- Ensure disaggregation of data by all available subgroups, and tailor supports to groups with the greatest need for acceleration.
- Include qualitative research to examine specific districts and their instructional approaches over time to dig more deeply into emerging data trends, especially relative to disproportionate impacts on specific subgroup populations (i.e., if student outcomes are better for districts using a certain instructional model, acceleration strategy, or curriculum, why? If a subgroup of students significantly underperformed relative to peers, why?).
- Make as much disaggregated data publicly available as possible so that independent entities can do their own analyses and use the information to make strategic decisions.
- Measure student usage of digital applications and their impact on student success through BrightBytes EdTech Impact and expand this analysis statewide.
- Tap the recommended State Advisory Task Force to Advance Education to collectively examine the data and its implications for state and district actions and to inform any needs for updating data collection.

NEXT STEPS

This interim report includes information available as of Fall 2021. The project team continues to seek additional quantitative data and will add the 2021-22 school year to the full data set as available. The team will re-engage the expert peer panel to examine data trends and discuss updates to policy recommendations for the final report, which is due in September 2022.

APPENDIX A

Expert Peer Panel Members

To review the findings of the qualitative case studies and inform resulting policy recommendations, the team assembled the following panel of Mississippi education leaders representing a range of organizations and expertise across the state.

Toren Ballard
Director of K12 Policy
Mississippi First

Carter Myers
President
Oxford School District Board of Trustees
and Director of Sales, BloomBoard, Inc.

Felicia Pollard
Academic Technology Specialists
Pontotoc City School District

Adam Pugh
Retired Lafayette County Superintendent

Jamie Rasberry
Policy Director
Mississippi Alliance
of Nonprofits and Philanthropy

Sarah Wansley
Teacher
Jones County School District
and Member, MDE Teacher Advisory Council

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