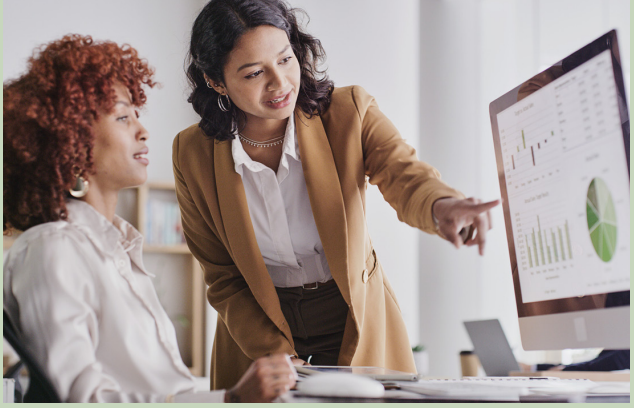

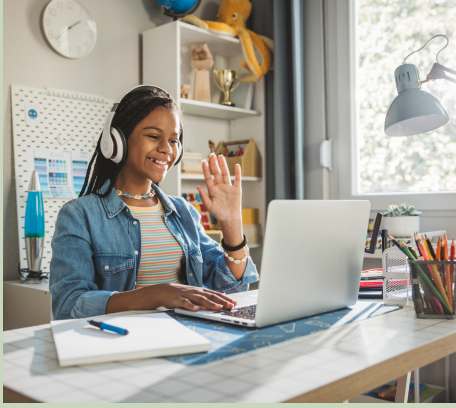

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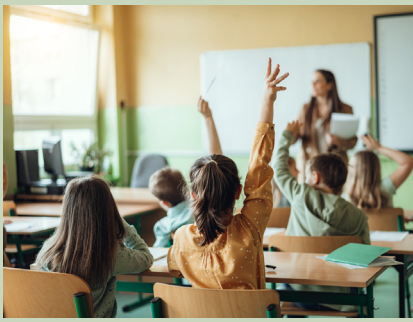
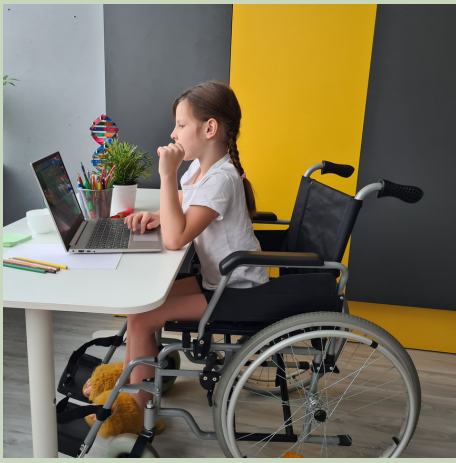
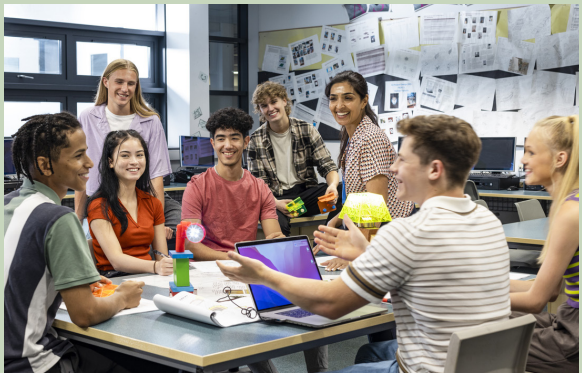
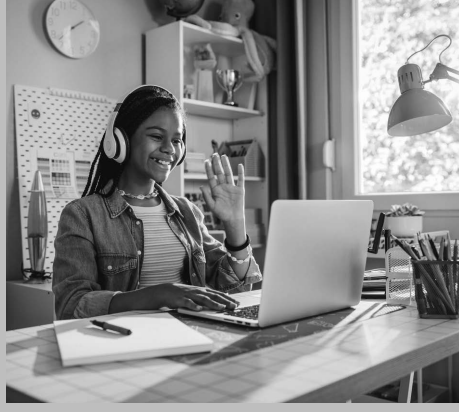






National Forum on Education Statistics



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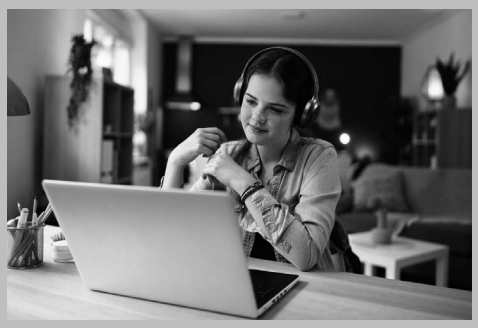

National Forum on Education Statistics

National Cooperative Education Statistics System

The National Center for Education Statistics (NCES) established the National Cooperative Education Statistics System (Cooperative System) to assist in producing and maintaining comparable and uniform information and data on early childhood, elementary, and secondary education. These data are intended to be useful for policymaking at the federal, state, and local levels.

The National Forum on Education Statistics (Forum) is an entity of the Cooperative System and, among its other activities, proposes principles of good practice to assist state and local education agencies (SEAs and LEAs) in meeting this purpose. The Cooperative System and the Forum are supported in these endeavors by resources from NCES.

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April 2024

This publication and other publications of the Forum may be found at the websites listed below.

The NCES Home Page address is http://nces.ed.gov

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The Forum Home Page address is http://nces.ed.gov/forum

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Foreword

The Forum is pleased to present the *Forum Guide to Student Learning Data During Pandemic School Closures and Beyond*. The purpose of this resource is to review how LEAs and SEAs changed their approaches to collecting and using student data during the pandemic and how they are working to create a path to student learning recovery. After experiencing the changes in how education was delivered during the COVID-19 pandemic, agencies are using student data across multiple areas—such as learning gaps, attendance, and student well-being and behavior—to identify individual and group learning needs and create effective plans for learning recovery and improvement.

Publication Objectives

This resource aims to help agencies

- consider how data collection and use were affected by school closures and adjusted learning models;
- create or enhance their strategies for the road to learning recovery; and
- improve policies and practices related to student learning data.

Intended Audience

The primary audience for this publication includes those individuals who collect and work with student learning data, as well as other stakeholder groups to whom these data are relevant, such as teachers, administrators, LEA and SEA staff, and policymakers.

Organization of This Resource

This resource includes the following chapters:

- **Chapter 1** discusses how shutdowns and adjusted learning models may have affected various student characteristics, approaches, and behaviors that influence learning.
- **Chapter 2** highlights LEAs' and SEAs' plans and strategies for using data to create a road to learning recovery for students and schools.
- **Chapter 3** features lessons learned by agencies addressing the influence of shutdowns and adjusted learning models on student learning data, as well as challenges agencies still are trying to resolve.
- **Chapter 4** features case studies from education agencies about strategies for creating a road to recovery, challenges experienced, and lessons learned.

National Forum on Education Statistics

The work of the Forum is a key aspect of the Cooperative System. The Cooperative System was established to produce and maintain, with the cooperation of the states, comparable and uniform education information and data that are useful for policymaking at the federal, state, and local levels. To assist in meeting this goal, NCES within IES—a part of ED—established the Forum to improve the collection, reporting, and use of elementary and secondary education statistics. The Forum includes approximately 120 representatives from SEAs and LEAs, the federal government, and other organizations with an interest in education data. The Forum deals with issues in education data policy, sponsors innovations in data collection and reporting, and provides technical assistance to improve state and local data systems.

Development of Forum Products

Members of the Forum establish working groups to develop guides in data-related areas of interest to federal, state, and local education agencies. They are assisted in this work by NCES, but the content comes from the collective experience of working group members who review all products iteratively throughout the development process. After the working group completes the content and reviews a document a final time, publications are subject to examination by members of the Forum standing committee that sponsors the project. Finally, Forum members review and formally vote to approve all documents before publication. NCES provides final review and approval before online publication. The information and opinions published in Forum products do not represent the policies or views of ED, IES, or NCES. Readers may modify, customize, or reproduce any or all parts of this document.

Working Group Members

This online publication was developed through the Cooperative System and funded by NCES within IES—a part of ED. The Student Learning Data During Pandemic School Closures and Beyond Working Group of the Forum is responsible for the content.

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The Student Learning Data During Pandemic School Closures and Beyond Working Group would like to thank everyone who reviewed or otherwise contributed to the development of the *Forum Guide to Student Learning Data During Pandemic School Closures and Beyond*. The working group would also like to acknowledge Rose M. LeRoy from the New York State Education Department, who provided valuable feedback to improve this resource, and Alvin Larsen from the Meriden Board of Education (CT), who contributed information for a vignette.

* Working group members marked with an asterisk also contributed case studies or real-world examples to this guide.

Contents

Glossary

Adjusted Learning Models: a term used to describe the range of options chosen by school districts and states for the presentation of education during the COVID-19 pandemic. Due to district- or state- mandated school closings, education agencies across the United States used varying models including remote, hybrid, and in-person learning. These models also may have been synchronous or asynchronous, or varied between the two.

Asynchronous Learning: virtual course sections that consist of student-oriented teaching and learning that is not organized around participants interacting at the same time and in the same virtual space. These sections may be self-paced, in which students access course section instruction and materials and complete assignments at their convenience, often by agreed-upon deadlines.

Authentic Assessments: a set of methods or techniques for assessing the academic achievement of a student that includes activities requiring the application of acquired knowledge and skills to real-world situations and that often is seen as an alternative or addition to standardized testing.

Contact Tracing: the process of identifying, assessing, and managing people who have been exposed to someone who has been infected with the SARS-CoV-2 virus. Contact tracing and quarantine of contacts identified through contact tracing interrupt transmission between people and are essential public health tools for controlling the virus.

COVID-19: an infectious disease caused by the SARS-CoV-2 virus.

Early Warning System (EWS): a system that identifies students who are at risk of course failure, not graduating on time, or dropping out of school. This type of system applies predictive analytics to student data to determine student risk level in relation to predefined indicators and thresholds. By identifying students who are at risk, an early warning system provides targeted data that may be used to develop student interventions that are designed to avoid negative student outcomes.

Education Indicator: measures the status of, or change in, an educational system in regard to its goals. Indicators are composed of data elements that are combined meaningfully and mathematically to measure and describe the status or change. Examples include class size, graduation and completion rates, and teacher retention rates.

Formative Assessment: a range of formal and informal assessment procedures conducted by teachers during the learning process to modify teaching and learning activities to improve student knowledge and performance. Formative assessment provides feedback and information during the instructional process, while learning is taking place. Formative assessment helps students understand what they have learned and what they still need to learn. Once feedback is given, students should have the opportunity to use the feedback to improve learning outcomes.

Hybrid Learning: instruction that occurs through a combination of in-person and virtual learning, wherein students learn at least in part through virtual education, with some element of student control over time, place, path, or pace; at least in part in a supervised location away from home; and the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience.

Pandemic Electronic Benefit Transfers (P-EBT): part of the U.S. government response to the COVID-19 pandemic. Through P-EBT, eligible school children received temporary emergency nutrition benefits loaded on EBT cards used to purchase food, because many districts were unable to provide school meals during the pandemic.

Priority Standards: a subset of the list of grade-specific or course-specific standards that students must meet to move on to the next grade level or course. These standards are those that have been identified as most essential by education agencies and can serve as a foundation upon which specific teaching and learning decisions are made.

Remote Learning: instruction during which students, teachers, or instructional staff are separated by time or location, or both. This scenario may be implemented during temporary emergencies, such as a public health crisis, natural disaster, or power outage that limit the ability of students or staff to safely participate in in-person education.

School Pulse Panel (SPP): a study collecting information on the impact of the COVID-19 pandemic from a national sample of elementary, middle, high, and combined-grade public schools, conducted by the National Center for Education Statistics (NCES). Some survey questions are asked repeatedly to observe trends over time while others examine unique topics in a single month.

Summative Assessment: assessments that evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark. Summative assessments are designed to assess the effectiveness of the program and the learning of the participants.

Synchronous Learning: learning in which teachers and students engage in a lesson or other learning activity at the same time and same place, whether virtual or physical.

Virtual Assessment: an assessment taken by a student in a remote or virtual learning situation, rather than in person.

Chapter 1: Introduction

Chapter 1 defines the concept of student learning data and discusses the importance of assessing and identifying how shutdowns and adjusted learning models may have affected various student characteristics, approaches, and behaviors that influence learning.

What Are Student Learning Data?

Student learning data provide information about student performance on different measures of knowledge, attitudes toward learning, or skills acquired through study, instruction, or experience. Examples of student learning data include standardized test scores, grade point averages, teacher observations of abilities or behaviors, and authentic assessment results. Student learning data may be formative or summative. The data may indicate student proficiency in a particular area or show student growth from one time period to another. These data are used for many purposes, including identifying gaps in learning and evaluating the effectiveness of lessons or teaching methods.

How the COVID-19 Pandemic Affected Student Learning Conditions

In spring 2020, most districts and schools across the country shifted to remote education during extended school closures caused by the COVID-19 pandemic. The public health emergency forced many education agencies to rapidly and broadly adopt remote education methods and virtual education technologies to ensure learning continuity for students. During the extended school closures, state education agencies (SEAs), local education agencies (LEAs), schools, and teachers, with limited time and minimal training, had to develop and deliver remote education to their students. In Guam, three models of learning were implemented: home learning online, home learning hard copies, and traditional face-to-face.

> ***Forum Guide to Virtual Education Data: A Resource for Education Agencies (2021)***
>
> This resource is designed to assist agencies with collecting data in virtual education settings, incorporating the data into governance processes and policies, and using the data to improve virtual education offerings. This resource reflects lessons learned by the education data community during the COVID-19 pandemic and provides recommendations that will help agencies collect and use virtual education data.
>
> https://nces.ed.gov/forum/pub_2021078.asp

Education agencies faced many logistical and material challenges in their rapid pivot to virtual and hybrid (combined virtual and in-person) models, including in many locations the expectation to retain academic rigor and maintain grade-level standards. Leaders quickly changed learning structures and models while maintaining expectations. Under continually changing circumstances, districts and schools received varying levels of support in their efforts

to stay connected with students and ensure that students continued to receive a complete and high-quality education. Some support from the state level inadvertently created burdens. For example, one state's guide to help LEAs ensure learning continuity during the pandemic was several hundred pages long.

Through existing and new connections, many agencies shared suggestions and learned from one another approaches to learning conditions. These conversations complemented the weekly updates sent by the National Center for Education Statistics (NCES) regarding closures throughout the country.[1]

The *Forum Guide to Attendance, Participation, and Engagement Data in Virtual and Hybrid Learning Models* (https://nces.ed.gov/forum/pub_2021058.asp) offers detailed information about different virtual (or online) learning models employed by local education agencies (LEAs) during the COVID-19 pandemic.

Within a virtual model, approaches to the delivery of instruction and rate of advancement or progress through academic content vary.

- In synchronous instruction, content is taught to a group of students who log in, tune in, or otherwise participate at a specified time and learn at the same time, as in a traditional course section, but without a shared physical presence. This approach consists of group-oriented teaching and learning organized around participants interacting at the same time and in the same virtual space.
- In asynchronous instruction, students access course section instruction and materials and complete assignments at their convenience by agreed-upon deadlines. This approach consists of student-oriented teaching and learning that is not organized around participants interacting at the same time and in the same space.
- A third alternative combines asynchronous activities with periodic synchronous activities, such as live online discussions and chats, webinars (online seminars), or videoconferencing sessions. In some cases, schools or teachers may decide to offer a mix of synchronous and asynchronous learning, either within a given day or on different days of the week. For example, some LEAs offer synchronous instruction with set times for each class on Monday through Thursday, but designate Friday as an asynchronous day when students are expected to complete work on their own.

The Guam Department of Education conducted a proficiency level self-assessment for teachers about technology use. Teachers were categorized as "novice," "competent," "proficient," or "advanced level." These designations were used by the Curriculum and Instruction Division to train and provide teachers with support needed to use technology for distance education.

Families without reliable internet access and personal computing devices, as well as English learners and students with disabilities, faced additional challenges to engage with remote education. Many families struggled with the availability of computers, as well as internet connectivity and bandwidth issues, especially with multiple children working online each day and adults working from home. Many agencies created plans to support families in these areas: For example, Milwaukee Public Schools (WI) provided new internet hotspots and worked with parents to help get students online.

Parents did not always have the time or preparation to help their children with lessons. In some cases, students from higher income homes were able to find solutions to these challenges, but economically disadvantaged students were more likely to struggle. For a range of reasons, many students' opportunity to learn during this time drastically decreased from previous school years.

1 https://nces.ed.gov/programs/coronavirus/reopen.asp

Districts did not all move to online learning immediately in spring 2020. Milwaukee Public Schools (WI) provided physical learning packets (in English and Spanish) in the early months of the pandemic, and students could submit work to demonstrate proficiency. At the high school level, the district created online courses for students to complete if they did not have a teacher able to support them. Central office staff who were licensed supported students in these courses. These courses were targeted particularly to students needing to finish coursework to graduate.

In addition, self-learning in remote or hybrid learning designs requires autonomy. Because school closures happened so suddenly, districts and schools did not have time to prepare students, parents, teachers, or staff in advance. Teachers had varying levels of technical knowledge and comfort with remote teaching, as well as a sudden requirement to translate lessons and grading structures into an online format. Despite significant efforts, students and teachers struggled to adapt to the change in learning conditions.

In the 2020-2021 school year, Wyandotte County (KS) schools were required to use a pod/silo system for in-person classes. Because of attendance limitations, students attended in person every other day and participated in virtual learning on the off days. At the elementary level, grade-level classrooms were home base for all lessons, including specials (art, music, physical education [PE], and library media). At the secondary level, students were assigned a homeroom classroom where they completed lessons through a blended and virtual learning platform instead of transitioning between classrooms and teachers.

To accommodate students and social distancing, some schools and districts resorted to providing remote instruction to students who were not physically in the same room as the teacher. This may have resulted in the teacher being in one room with half the class while the remaining students were in another location in the school building, under the supervision of another adult while engaging in the lesson online. Likewise, other students could have been receiving remote instruction entirely online.

Students had varying levels of success with the remote learning situation they rapidly entered. Some students flourished on their own: They were able to work on schedules that suited them, they avoided transportation problems, and they were able to meet familial needs that otherwise could have caused absences. Other students struggled with isolation and lack of social support, facing increased stress and depression that impeded their ability to learn. Both types of experiences had implications for returning to school. For instance, districts had new challenges for building more flexibility and autonomy or mental health supports when they returned to in-person structures.

When the Utah State Board of Education moved students to remote learning, many questions emerged related to confidentiality:

- Can teachers record the classroom?
- Can students not have their cameras on?
- Can students record discussions?
- Can parents enter the room?
- Can teachers and students meet one-on-one virtually?
- What does different software collect?

Standards of confidentiality and appropriate policies had to be established.

Jefferson County Public Schools (KY) administered surveys to families, students, and staff to assess their perceptions of the remote learning period in four major areas: health and wellness, communications, learning, and technology. Additionally, the SEA added questions to its quality of school climate and school safety survey. At the district level, most families reported having the materials needed to complete assignments and that the amount of work was about right given the circumstances. Similarly, more than 75 percent of students reported being able to

work with their teacher and classmates online when their building was closed, and more than 80 percent reported that their teachers were available when they needed help. Fewer students reported feeling good about what they learned during the pandemic, particularly at the high school level. Students also reported more stress and anxiety than parents or teachers about the expectations during this time period.

The Influence of Shutdowns and Adjusted Learning Models on Student Assessment

Data from the School Pulse Panel (SPP)—a study collecting information on the influence of the COVID-19 pandemic from a national sample of elementary, middle, high, and combined-grade public schools—and the National Assessment of Educational Progress (NAEP) long-term trend assessment show that student learning has been affected negatively by the pandemic. Before the pandemic, public schools reported that an average of 36 percent of students were behind grade level prior to the pandemic; this figure jumped to an average of half of students being behind grade level at the beginning of both the 2021–22 and 2022–23 school years.[2] The 2022 NAEP long-term trend assessment—the first nationally representative report comparing student learning from before to during the pandemic—showed the largest average score decline in reading since 1990 and the first-ever score decline in mathematics.[3]

Local and state agency leaders also have seen effects on many factors that influence learning, such as attendance, student well-being, and behavior. LEAs and SEAs are considering how these outcomes related to shutdowns have affected—and may continue to affect—the trajectories of individual students and education overall.

In the immediate months after COVID-19 forced schools to close, many LEA and SEA leaders were attending to urgent crises caused by the pandemic, leaving little time to prioritize the influence of the pandemic on student learning outcomes and assessment. For example, leaders in Oregon quickly focused on supporting students' tangible needs as much as possible as they faced multiple changes related to the pandemic, including shifting learning models. In Jefferson County Public Schools (KY), leaders focused data collection efforts to improve services, such as providing devices and standing up meal distribution centers. In Utah, leaders focused immediately on data challenges that could be addressed rapidly, with the more general presumption that outcomes data could be handled later. They shifted to collecting new data points, such as the number of sick students and tracking contact data when people were exposed to COVID-19. In Kentucky, leaders shifted to track participation rather than using and reporting traditional attendance/seat time measures. New connections with other agencies needed to be approved so the state could share data without violating laws such as the Family Educational Rights and Privacy Act (FERPA) or the Health Insurance Portability and Accountability Act (HIPAA).

Conducting meaningful assessments was a serious challenge for many agencies. In Louisiana Public Schools, all testing was done in person, regardless of whether the students were attending school remotely or in person because there was no option to provide a proctored and secure remote assessment online. Jefferson County Public Schools (KY) paused benchmark assessments during the 2020–21 school year, and Kentucky took advantage of the federal waiver regarding using test data in its accountability model. New York canceled state assessments in spring 2020; teachers and educators were encouraged to use multiple data points to help determine learning outcomes. In Oregon, low participation rates hindered meaningful

2 U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (2022). *School pulse panel: Learning Recovery*. Retrieved March 8, 2023, from https://ies.ed.gov/schoolsurvey/spp/.

3 U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress. (2022). *Reading and mathematics scores decline during COVID-19 pandemic*. Retrieved February 1, 2023, from https://www.nationsreportcard.gov/highlights/ltt/2022/.

assessment, which led to a lack of generalizable data. State data leaders continue to work toward quality statewide assessment data, which will provide the ability to evaluate and report on the effectiveness of various projects, such as a newly funded summer school program to help students catch up after losing in-person learning time during the pandemic.

As they work to recover from the effects of the pandemic and related school closures, LEA and SEA leaders have faced challenges ranging from inadequate systems of data collection and limited collection of diversified data to increasing data burdens and the need to change traditional means of data collection and use. New questions about student learning and shifts in the data categories being prioritized have led agencies to reconsider multiple parts of the data assessment process.

Identifying the Student Learning Factors Affected by Pandemic Changes

Education agencies used a variety of means to identify student learning factors that were affected by school closures and adjusted learning models, such as analyzing trend data on leading indicators, conducting stakeholder surveys, and reviewing research briefs.

> ***Using Education Indicators: A Forum Guide for State and Local Education Agencies (2022)***
>
> This resource was developed to provide timely and useful information on education indicators, how their collection and use have changed over time, and how agencies use them strategically. This resource highlights best practices for using indicators, adjustments over time to the collection and use of indicators, shifts in types of relevant indicators, and what possibilities local and state education agencies (LEAs and SEAs) see for the effective use of indicators in the future.
>
> https://nces.ed.gov/forum/pub_2022132.asp

For example, Milwaukee Public Schools (WI) looked at trends in indicators such as enrollment, assessment data and growth data, suspensions, attendance, and absenteeism. As the district presents 3- to-5-year trends on the district dashboard, information related to the timeline of pandemic-related events is needed to help stakeholders understand how these may have influenced the data.

Montana's Bozeman School District #7 has tracked attendance patterns and enrollment factors. During the pandemic, the district lost the equivalent of an entire elementary school, going from an elementary enrollment of 3,225 in 2019 to 3,055 in 2022. While Bozeman has regained some students, enrollment has not bounced back completely. In Guam, social workers and attendance officers were engaged to locate the 10 percent of students that did not show up for school even after the governor ordered a return to face-to-face learning.

> Bozeman School District #7 (MT) opened an online charter academy during the pandemic, but enrollment was very low. The district connected this to anecdotal information suggesting that its teachers and families both prefer in-person learning.
>
> On the other hand, Jefferson County Public Schools (JCPS) opened a virtual school serving grades K-12 for the 2020-21 school year that quickly became one of the largest schools in the district in terms of enrollment due to strong family demand.

Enrollment data have been affected in many locations by problems in tracking students, which can range from simple lack of contact to students moving to alternative experiences like homeschooling. Because there are questions regarding the completeness and accuracy of enrollment information, for the 2020-21 school year the Oregon Department of Education instructed districts to continue to try contacting missing students and not to consider them dropouts, with the understanding that this would limit the accuracy of many traditional student counts.

Between fall 2010 and fall 2019, total public elementary and secondary school enrollment increased by 3 percent, from 49.5 million to 50.8 million students. Total enrollment then dropped by 3 percent to 49.4 million students in fall 2020 and remained at a similar level (49.4 million students) in fall 2021.

Source: "Public School Enrollment," *Report on the Condition of Education* (2023); https://nces.ed.gov/programs/coe/indicator/cga/public-school-enrollment?tid=4

Teacher turnover and absences also affected student learning, as did the instability of repeated shifts between face-to-face and online learning as classrooms, grades, or entire schools enforced quarantine requirements. As most students returned to in-person learning as a standard model, schools and districts faced increased discipline problems as students readjusted. Many new teachers did not have the classroom management experience to address such challenges effectively. These issues influenced the students' educational experiences, which in turn affected the learning data collected. At a higher level, LEAs like Fairbanks North Star Borough School District (AK) were unable to assess school climate as adequately as they normally would because survey responses dropped to 40 percent.

Adjustments to Data Processes

Shifting expectations and priorities during the time of pandemic school closures and adjusted learning models created both needs and opportunities for LEA and SEA data collection and use. In many locations, agencies that had not connected previously regarding data suddenly needed to share data in order to accurately and promptly answer various questions. In many locations, education agencies were granted permission to share data with departments of health to allow all to stay current on illness numbers, contact tracing, and immunizations. The Louisiana Department of Education created data-sharing agreements with both the United States Department of Agriculture (USDA) and the Louisiana Department of Health. The New York Department of Education (NYDE) developed memoranda of understanding with the New York State Office of Temporary Disability Administration. These allowed NYDE to make Pandemic Electronic Benefit Transfers (PEBT) possible for students eligible for free and reduced priced lunch (FRPL). Daily attendance and instructional modality allowed the state to identify and understand benefits for students who were eligible and did not have access to a meal because they were receiving entirely remote instruction.

LEAs and SEAs also adjusted the way they collected different types of data, some of which remain and others that were phased out as waivers ended. In many locations, definitions of and methods for collecting attendance changed significantly when students moved among virtual, hybrid, and face-to-face learning modes. LEAs also made decisions about assessing attendance for synchronous and asynchronous learning. Districts needed to define what "present" meant in these varying situations. In Guam, for example, the meaning of "present" depended on the learning mode chosen by the parents or guardians. For families who selected to have their students' work provided in hard copies, "present" meant the learning material was picked up and assessments or projects submitted. New York changed its average daily student attendance collection to include positive and negative attendance, allowing students to be present for the instruction for the day, irrespective of instructional modality. Many of these changes have continued beyond the temporary school closures, as schools need to retain this flexibility moving forward.

"During the pandemic, local education agency (LEA) administrators and data leaders considered multiple ways to collect attendance data. Attendance in a virtual environment may be measured based on minutes of instruction, time logged in, performance on assessments, competency achievement, or other factors. LEAs across the country used these types of measures as they–at least temporarily–increased their levels of virtual learning."

–Forum Guide to Attendance, Participation, and Engagement Data in Virtual and Hybrid Learning Models

https://nces.ed.gov/pubs2021/NFES2021058.pdf

The Oregon Department of Education conducted a review of state data collections in March/April 2020 to determine which were essential and which could be suspended for the year, especially because federal accountability was waived for the year. Reasons for the review included

- Students were in remote learning starting in April 2020.
- District staff were "all hands on deck" in the conversion to distance learning.
- Statewide assessments and federal accountability measures were suspended.

More than 20 data collections were reviewed under the following criteria:

- Is the data collection used for funding?
- Is the data collection used for federal reporting (that has not been waived)?
- Does the data collection directly impact students?
- Are there pandemic-related policy changes that impact the accuracy or availability of data?

After review, the state education agency (SEA) suspended several data collections for the 2019-20 school year, including

- Class Roster: Districts submit all classes with enrolled students during the school year, and the SEA uses May 1 as the date to compute class size. The transition to distance learning meant that districts were not uniformly scheduling online classes, and the effort to collect and standardize these data was determined to be greater than the benefit.
- Physical Education (PE) Minutes: The state requires districts to submit minutes of PE for their students. This was suspended after the move to distance learning and is used for reporting purposes only.
- May 1 Enrollment Collection: This collection is used only for state and federal reporting and was due at a time when districts data staff still were involved heavily in the transition to remote learning.

The SEA resumed data collections in the 2020-21 school year. However, because of the gap in data, the agency has implemented an effect notification for entities that use student-level data for reporting, completing studies, and auditing.

Temporary waivers from the U.S. Department of Education (ED) or states allowed other changes, such as grading some courses pass/fail or relaxing some graduation requirements In Milwaukee Public Schools (WI) in 2020, students did not have to meet district credit requirements, nor did they have to take the civics test normally required for graduation. Instead, students had to meet the state minimum requirements for graduation. The following year, the district had to request the waiver, and after 2021, waivers no longer were available.

Bonner Springs/Edwardsville Unified School District 204 (KS) lowered credit requirements, reverting to the state standard of 21 from a raised requirement of 24 that some districts had implemented previously. Fairbanks North Star Borough School District (AK) temporarily froze the results of its accountability system. In Kentucky, families were given the option to participate in the supplemental school year program whereby students could retake or supplement courses because the pandemic caused prolonged remote instruction and other barriers.

In March 2020, states were provided flexibility regarding the assessment and accountability requirements under the Elementary and Secondary Education Act of 1965 (ESEA), as amended by the Every Student Succeeds Act (ESSA). At that time, states were allowed to submit a request for a waiver for the 2019-2020 school year of federal assessment, accountability, school identification, and select reporting requirements related to assessments and accountability. Through these waivers, states did not need to administer statewide assessments to all students, make annual accountability determinations, identify schools for support and improvement, or provide data on state and local report cards for assessment and accountability information.[4]

The Kentucky Department of Education took the opportunity provided by the period of accountability waivers to build out its *Portrait of a Learner*, a set of school- and district-level aspirations for what every learner will know and be able to do when they leave school. The state education agency (SEA) recognizes that learning experiences must be more intentional about fostering communication, collaboration, adaptability, and other skills students need to thrive. The state's next step is to incorporate this work within the requirements of current federal accountability systems.

As agencies move beyond the ramifications of the pandemic and subsequent school closures, many are addressing the distinctions between adjustments at the state level and official federal waivers and the need to align with both state and federal requirements. For example, parents in Utah can refuse accountability assessments for their children, but requirements of ESSA state that participation in assessments must meet a 95-percent threshold, both overall and within each subgroup of students.[5] Many states found that the pandemic affected their ability to meet ESSA school accountability requirements, specifically in growth measures. Accountability was waived in 2020 and 2021, but growth could not be calculated in 2022 because it required two consecutive years of summative assessment data representative of the entire student population.

4 U.S. Department of Education. (March 2020). *Secretary's letter to Chief State School Officers regarding waiver of assessment and accountability requirements under the Elementary and Secondary Education Act of 1965 (ESEA) during COVID-19 national emergency*. Retrieved April 12, 2023, from https://www2.ed.gov/policy/gen/guid/secletter/200320.html.

5 Every Student Succeeds Act, 20 U.S.C. § 6301 (2015). https://congress.gov/114/plaws/publ95/PLAW-114publ95.pdf.

Chapter 2: **Using Student Learning Data to Create a Road to Recovery**

Chapter 2 highlights the ways local and state education agencies (LEAs and SEAs) have investigated student learning trends during and following school shutdowns and their plans and strategies for using data to create a road to recovery for students and schools.

Assessing Student Learning

> Many assessments could not be given in a virtual format, which meant that students could not be assessed by instruments used previously. Additionally, when some assessments developed protocols for virtual testing, concerns were raised regarding who was being assessed, how much help a student was receiving, and therefore how valid and reliable the data obtained were.

During school closures, LEAs and SEAs faced unexpected challenges to their typical data collection processes. With students in remote or hybrid learning models, some data either could not be collected or needed to be obtained in different ways. Remote learning models potentially threatened data quality of assessments: Limited family access to phones or the Internet could hinder a representative sample, and many assessments were not designed to be given in a virtual environment. Student experiences in rural versus urban areas varied significantly in many states: Rural areas could face greater obstacles with internet access, while urban areas often had higher COVID-19 infection rates comparatively (leading to quarantines). Additionally, the changes in learning models meant that data that had been collected consistently for years now would be influenced by multiple external factors. Statistically, this meant that pre-pandemic, during pandemic, and post-pandemic data could not be compared without significant caveats.

While the waivers offered under the Every Student Succeeds Act (ESSA) provided a critical reprieve for LEAs and SEAs as they struggled through the height of the pandemic, they also created holes in the data. In addition, many assessments could not be done virtually. For example, Milwaukee Public Schools (WI) uses ACT testing (11th-graders) and elementary-level state tests, both of which are conducted in person, for state and federal accountability requirements. In spring 2021, high school students still were 100 percent virtual during the ACT testing window. Therefore, the LEA's students could opt in for the ACT. The LEA's schools returned to in-person learning in April 2021 with only 3-4 weeks of the traditional state testing window open and many families choosing to stay virtual. As a result of these realities, only 43 percent of students in Milwaukee Public Schools (WI) were tested. Jefferson County Public Schools (KY) also saw lower participation rates in state testing, and Kentucky's SEA published a note on its school report card website indicating the comparisons with previous years are not appropriate because of the number of test takers, changes to the assessment, and modified instructional settings.

As LEAs and SEAs assess current data, there are options in terms of what data will be used for comparison. For example, agencies may align current data with the previous year or the year before the pandemic began. Alternatively, comparisons may be made against average gains from one year to the next before the pandemic or pre-pandemic national assessments. Bozeman School District #7 (MT) does both by comparing current achievement scores to the pandemic years, as well as years prior to the COVID-19 pandemic. This helps agency leaders take a longitudinal view of achievement scores. Milwaukee Public Schools (WI) looks at full data sets when possible and focuses on National Assessment of Educational Progress (NAEP) data because of its status as a NAEP Trial Urban District Assessment (TUDA) district. The district uses 2018-19 as the baseline for pre-pandemic data since that was the last full year before pandemic-driven school closures, and sometimes uses fall and winter 2019-20 local data as a baseline. The district avoids data from 2020 to 2021, as participation was low, and some assessments were not conducted.

Collecting meaningful data about student learning remains a challenge, however. LEAs report that assessment teams struggle to obtain key data, such as how many students are remaining in virtual learning and how they are (or are not) progressing. The composition of public school students changed in some locations, creating questions about the actual cause of changes to assessment scores. In Milwaukee Public Schools (WI), like many other agencies nationwide, absentee rates remain high, so the district has a substantial number of students it cannot measure. Student participation in assessment measures remains low across the country, and data leaders are concerned that the students most affected by school closures and changing learning models are likely to be the very ones for whom they have little to no data. While program effectiveness remains important to stakeholders, typical growth measures cannot be used effectively with minimal data.

New Perspectives on Student Assessment and Learning Data

> "The pandemic shined a light on a problem that was already there."

The dramatic changes to data collection and use during and moving beyond the pandemic have brought about key shifts in perspective for many data teams. Some have determined that typical accountability measures did not provide sufficient information about individual students. Agencies are shifting how they find and identify those who are in need. LEAs and SEAs long had been dependent on traditional forms of data, and when these were not available during school closures, many agencies were not prepared to collect a range of other data to answer new questions. Milwaukee Public Schools (WI) is working to change some metrics to better assess systemic progress, acknowledging that they need to move beyond their common spring-to-spring comparisons. Fairbanks North Star Borough School District (AK), having tracked performance historically via the early warning system (EWS), now has this system running live with automatic updates. This allows the district to be more on track, but data leaders have explained to stakeholders that some of this information must be taken with reservation when assessing remote learning.

In many LEAs and SEAs, data collection during and beyond school closures brought to light issues of equity. Leaders in the

> In fall 2021, the New York State Education Department and Boards of Cooperative Educational Services (BOCES) shifted to a student- and school-level Student Digital Resources data reporting protocol. This collection helps identify specific needs, target resources, and share funding opportunities with local education agencies (LEAs).

> Officials in Fairbanks North Star Borough School District (AK), required to track students receiving services for its Quality Schools Grant, have discussed how the concept "receiving services" should be defined. Should it be based on minutes? Frequency of services? Type of services? These choices influence the type, amount, and usefulness of the data collected.

Utah Department of Education realized they needed a greater focus on at-risk populations, as the pandemic uncovered gaps larger than what had been known. Many districts in Wisconsin increased their focus on the digital divide, which they found not only in urban areas but also throughout rural areas of the state. When the state was supposed to provide students with devices once learning was back to face-to-face instruction, these districts also faced supply problems. In Louisiana, SEA leaders continue to seek solutions for technology needs, as some schools still do not have adequate internet access. Across the country, agencies found lower-income students more likely to suffer the effects of the pandemic, and many devised means of studying long-term trends related to equity.

Forum Guide to Digital Equity (2022)

This resource is designed to help education agencies close digital equity gaps through the collection and use of digital equity data. This publication defines digital equity; explains the importance of having comparable, high-quality digital equity data; and discusses how those data can be used to identify issues, prioritize action, and create new programs or sustain existing efforts to address digital inequities.

https://nces.ed.gov/forum/pub_2022098.asp

Changes in data collection also have created questions regarding the acceleration of learning and how it should be measured. While the term traditionally referred to learning opportunities such as skipping grade levels or taking Advanced Placement (AP) or International Baccalaureate (IB) courses, it now is being used differently. Education agencies are considering the rate at which students are rebounding from or moving forward after pandemic-related challenges. Questions remain, however, as to the precise expectation: Does acceleration mean getting back to pre-pandemic achievement levels, or does it mean reaching higher levels of proficiency post-pandemic? Varying viewpoints about the priorities for recovery plans can influence interpretations, as LEA and SEA leaders are motivated to show that student learning is improving. This can lead to LEAs changing metrics to indicate this improvement as much as possible.

Using Student Data

Many LEAs and SEAs have adjusted the way they use student data after the school closure and remote learning period, as needs and goals have changed.

Jefferson County Public Schools (KY) adjusted their MAP (Measures of Academic Progress) reports post-pandemic to emphasis acceleration. Benchmarks were set for the 60th percentile in both growth and achievement to represent acceleration. The district wanted to demonstrate that reaching grade level growth still is not enough if the student or cohort is multiple grade levels behind.

Bozeman School District #7 (MT) has increased its use of multi-tiered systems of support (MTSS) and has emphasized professional learning communities (PLCs). In Wisconsin, changes have been made to the 2021-22 ESSA reports for each publicly funded school and district, including reducing the years of data used and shifting timelines to account for data disruptions. On state report cards, the SEA used skip year metrics.

In April 2022, some 69 percent of public schools reported that the percentage of students who sought mental health services from school had increased since the start of the coronavirus pandemic.

Source: "Recovery From the Coronavirus Pandemic in K-12 Education," *Report on the Condition of Education* (2023); https://nces.ed.gov/programs/coe/indicator/toa/k-12-covid-recovery?tid=4

As LEAs move forward, many have recognized a need to collect and include not just academic data about students, but also the antecedents to academic outcomes, such as mental health, physical health, and overall well-being. Officials in the Utah State Department of Education are working to redefine engagement in students, as well as focusing more attention on behavioral

incidents and mental health. These issues now are weighted almost equally in importance as academic data. Jefferson County Public Schools (KY) now administers a mental health screener as part of its MTSS work. In addition, key performance indicators that are reviewed every 6 weeks by school and district leaders include both academic measures and attendance and behavior measures so that the LEA can better track and monitor holistic student data. The Guam Education Board adopted a social-emotional learning policy in December 2020 to ensure the development of the social, emotional, and physical health and welfare of all students.

Student engagement is characterized by meaningful involvement by learners in their education or training.

Creating a Road to Recovery

As agencies move beyond the educational changes and data disruptions brought on by school closures, LEAs and SEAs are at varying points in the creation and implementation of a "road to recovery" that is appropriate to their needs and objectives. Each is considering strategies, adjusting data collection and assessment as necessary, and ultimately defining and existing within a "new normal."

To support their students' pandemic-related learning recovery, public schools implemented a variety of strategies during the 2021–22 school year. Overall, some of the most commonly reported strategies used to support pandemic-related learning recovery, out of a total of 15 that public school administrators were asked to report on, were

- identifying individual needs with diagnostic assessment data (79 percent);
- identifying individual needs with formative assessment data (76 percent);
- summer 2021 learning/enrichment programs (76 percent);
- remedial instruction (73 percent);
- mental health and trauma support (72 percent);
- after-school learning/enrichment programs (60 percent); and
- professional development on learning recovery (50 percent).[6]

Agencies continue to coordinate and revise their timelines for recovery. Milwaukee Public Schools (WI) does not have a specific timeline, but leaders acknowledge the need for significant movement in the next year or two. The district's 2023-28 Strategic Plan has identified goals for both increased student achievement and graduation rates to beyond even pre-pandemic levels. Jefferson County Public Schools (KY) is working on developing new board goals that will be based in part on considerations of post-pandemic achievement levels and needs identified through community listening sessions.

Louisiana enacted legislation to expand academic support with accelerated learning communities. Any student who failed to reach mastery in 2020-2021 and 2021-2022 would be provided with expanded academic support. Each local education agency (LEA) developed an education plan and supporting budget to provide expanded academic support to students using federal funds provided for educational relief due to COVID-19.

The Louisiana Department of Education launched Louisiana Comeback—a cooperative campaign to accelerate student learning and ignite academic recovery. The statewide collective impact is based around three primary areas: attendance and wellbeing, recovery and acceleration, and professional learning.

6 National Center for Education Statistics. (2023). Recovery From the Coronavirus Pandemic in K-12 Education. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved February 19, 2024, from https://nces.ed.gov/programs/coe/indicator/toa.

In Guam, the timeline for recovery for the public schools is correlated highly with the governor's timeline for island-wide recovery. Executive orders issued by the governor regarding emergency status impacted the return of employees to face-to-face attendance. During the height of the pandemic, telework mode was permitted, and this coincided with online learning. When the emergency status was lifted, students and employees were required to return to the traditional mode, though parents were given the option to keep their children at home.

Resources

Agencies also are assessing how their resources were affected by the pandemic, and where they stand moving forward. For example, Jefferson County Public Schools (KY) is implementing a new funding formula that considers needs from different student groups, particularly those that national research shows may need more support in recovery efforts. The strategy and formula for the allocation of "equity funds" are prescribed within the allocations for each instructional level (elementary, middle, and secondary). Equity funds are determined based on a weighted formula of student demographics called the Needs Index, which comprises the percentage of students on free and reduced price lunch, English learners, students with disabilities, and students who move schools during the year. For instance, elementary schools will receive an allocation of discretionary funds equal to the sum of 1,000 times the JCPS Needs Index and 1,000 times the percentage of students of color. Thus, a school with a Needs Index of 50 and 80 percent students of color will receive $130,000 in discretionary funds for the purpose of addressing racial equity. School leadership then identifies the best use of these funds for addressing disproportionate student outcomes.

Through Elementary and Secondary Schools Emergency Relief (ESSER) Funding, Bonner Springs/Edwardsville Unified School District 204 (KS) hired a school improvement specialist and five instructional coaches (one at each building in the district) with the goal of addressing learning loss, achievement gaps, providing support for principals and teachers related to curriculum and instruction, and tiered support. This team analyzes student performance data, resources, and best practice instructional strategies throughout the district, which has ensured vertical curriculum alignment throughout the LEA. In addition, the instructional coaches provide professional development for teachers, model effective instructional strategies, and offer support on effective use of resources to meet the needs of all students. These positions are focused on student achievement, learning loss in relation to the pandemic, and alignment and analysis of the school improvement process related to school and district achievement and performance. The coaches work together to ensure at-risk groups, including low-income families, students of color, English learners, and students with disabilities, are achieving at the highest level. The analyses and interventions supported by this funding have produced informative and useful data and feedback from stakeholders, but agencies worry about what will happen once this funding is phased out. Questions continue about whether these initiatives will continue through other funding sources or be discontinued without direct support.

Data Collection

Changes in data collection inspired by pandemic-related school closures and adjusted learning models also influence education agencies' timelines and plans for recovery. Formative assessment has increased in Milwaukee Public Schools (WI), which has required more staff training. The LEA now measures adult professional learning and implementation that it did not previously have tools to measure and has upgraded its learning management system to collect these new data.

LEAs and SEAs need to determine expectations for recovery—what will success look like? When Jefferson County Public Schools (KY) returned to in-person school, they focused on priority standards as a means of acceleration. Leaders in Fairbanks North Star Borough School District

(AK) are working to determine a threshold for which students need services beyond their teachers' efforts, as well as what is a reasonable amount of and timeframe for acceleration. Milwaukee Public Schools (WI) is considering expanding data collections regarding teacher proficiency and retention, as well as students' educational needs (tutoring, for example) and mental health.

Chapter 3:
Lessons Learned and Continuing Challenges

Chapter 3 features lessons learned by agencies addressing the influence of shutdowns and adjusted learning models on student learning data, as well as challenges they still are trying to resolve.

Measuring Pandemic-Related Learning Gaps or Acceleration

The changes brought on by school closures and adjusted learning models influenced student learning in negative and positive ways. Many schools and districts have acknowledged learning gaps that need to be remediated and are using student data to identify priorities and direct resources. In some cases, however, working in a remote or hybrid learning situation allowed students to accelerate their learning, and schools are assessing the best ways to build on these gains.

Methods for measuring these changes depend on an agency's needs and goals. In some cases, schools have increased formative evaluation in classrooms to supplement the return of various summative assessments, such as course final exams or state assessments. Increased formative evaluation also can be due to changes in approach developed during the pandemic, such as Bozeman School District #7 (MT)'s heightened focus on multi-tiered systems of support (MTSS) and professional learning communities (PLCs). Milwaukee Public Schools (WI) has been able to return to its previous formative practices to monitor student progress, which include universal screening assessments three times a year. The local education agency (LEA) also is collecting more formative data at the school level.

Capacities for Assessing Individual Student Progress

As data collection and use have changed due to shifting needs and goals, agencies are considering their capacities for assessing and using the student learning data they collect.

> Data leaders in the Delaware Department of Education have expanded their use of cohort analyses beyond student assessment to include issues such as attendance, engagement, behavior, and discipline rates.

In Milwaukee Public Schools (WI), issues related to virtual assessment limited the progress monitoring ability of data leaders early in the pandemic. Because SEA leadership cancelled testing in 2020 and students continued to attend school virtually through 2021, the LEA had far lower percentages of students taking assessments than in prior years. These numbers began returning to normal when the Milwaukee Public Schools went back to in-person learning in 2022. The LEA now is able to track progress effectively, monitoring with a variety of dashboards and assessments and also measuring a range of student outcomes beyond learning. In both Bozeman School

District #7 (MT) and the Guam Department of Education, data leaders purchased a new learning management system (LMS) to meet expanded needs for collection of student learning data.

> ***Forum Guide to Early Warning Systems (2018)***
>
> This resource provides information and best practices that will help education agencies plan, develop, implement, and use an early warning system in their agency to inform interventions that improve student outcomes. This document focuses on early warning systems and their data from the perspective of the education data community.
>
> https://nces.ed.gov/forum/pub_2019035.asp

Many education agencies increased the use of their early warning system (EWS) for assessment of student progress, but leaders note that these are dependent on the quality of the data entered in them, as well as the amount of data missing. Additionally, some systems lag due to infrequent updates, minimizing data usefulness. Some data leaders also note that these systems were trained on pre-pandemic data and could be less accurate in identifying students currently in need of intervention. At minimum, there could be additional factors relevant now that should be added.

Public Perception of Student Learning Data

> "We do not have a full trend that is not being affected by the pandemic yet and won't for 5 years at least."
>
> –local education agency (LEA) data leader

Many LEAs and state education agencies (SEAs) face challenges in how stakeholders interpret–and sometimes misunderstand–the data that are available. People without training or a foundation in data may not understand that the data collected during the years of pandemic school closures and adjusted learning models are not comparable to those from earlier years and that they must be viewed with nuance. These data cannot be judged at face value but instead must be considered within context. For example, attaching letter grade equivalents to percentile scores would be inappropriate. In Fairbanks North Star Borough School District (AK), data leaders report that accountability has moved from being a central focus to a part of a broader perspective on student learning data that includes course rigor and college- and career-readiness.

Finally, data experts can benefit education agencies by developing strategies and messaging to explain to stakeholders that it may take years for schools to recover from the effects of the pandemic. Though the necessary caveats to assessment data remain from a statistical standpoint, LEA and SEA leaders worry that some stakeholders may want to move on from addressing the impacts of the pandemic and do not understand how long the validity of these data will need to be considered. Similarly, some express concern that the increased focus on issues related to student mental health and well-being demonstrated during the years of quarantines and adjusted learning models may recede, and the potential progress on these issues (and their influence on student learning) could be lost.

Moving Forward

As LEAs and SEAs move beyond the pandemic and its related school closures and adjusted learning models, they are considering the factors driving changes in data processes and strategies. There may be disagreement about what the "road to recovery" is and how it should be structured, but there is increasing acknowledgment that it will not solely include traditional categories of academic data. Defining expectations for and details of these recovery plans should be done thoughtfully to meet the unique needs of an agency's students. For example, impacts on academic subjects and developmental areas were not distributed uniformly; to address learning gaps, analyses must provide information specific to disaggregated groups of students.

Many education agencies are moving toward the concept of holistic or whole child well-being, which will significantly change the types of data collected and how the information is used. Experiences throughout the pandemic have created a potential for new research or opportunities to reevaluate how learning and schools function. For instance, focusing on whole child well-being has created a need to partner with community agencies and other organizations that are committed to this work. States that already have created connections between departments of education and health may expand these partnerships to allow more robust data analyses.

Meriden Board of Education (CT) research found that elementary school students had a much more difficult time than secondary school students in adjusting to the effects of the pandemic. Elementary school students generally had a 1-year decrease in reading achievement and small decreases in math versus their 2019-2020 grade level cohorts. Elementary teachers reported a 14-percent decrease in prosocial student behaviors, while suspensions of elementary grade students increased over 40 percent in the 2021-22 school year compared to 2017-18 and 2018-19. Anxiety increased 7 percent during the pandemic, moving up to 30 percent across grades 4 to 6 in 2021.

Chapter 4: **Case Studies from Local and State Education Agencies (LEAs and SEAs)**

Chapter 4 features case studies from education agencies about their experiences with the influence of school shutdowns and adjusted learning models on student learning data, challenges faced, best practices used, and lessons learned.

Bonner Springs Edwardsville Unified School District 204 (KS)

During the spring of the 2019-2020 school year, all schools across Kansas were required to move to virtual learning under order of the governor due to the COVID-19 pandemic. Leaders in Bonner Springs Edwardsville Unified School District (KS) (USD 204) initially focused on ensuring that all families could connect virtually to their schools. A pre-pandemic initiative to make devices available to all students, as well as hotspots provided to expand internet access across the district, meant that students were able to transfer to the virtual learning environment with support from their schools.

Adjusted Learning Models

In the following school year (2020-2021), pandemic concerns led the Wyandotte County Health Department to place USD 204 under a schooling plan that impacted the school day structure, student attendance options, and the overall learning environment. All schools were required to operate on a hybrid schedule, with in-person attendance every other school day. Students were in the classroom 2 days a week and were learning virtually the remaining 3 school days. At the elementary level, grade-level classrooms were home base for all lessons, including the specials (art, music, PE, and library media) that would normally be conducted elsewhere in the building. At the secondary level, students were assigned a homeroom classroom where they completed lessons through a blended learning platform instead of transitioning between classrooms and teachers.

By the fourth quarter of the 2020-21 school year, restrictions issued by the county were lifted and USD 204 began transitioning back to a more normal school day schedule and classroom structure.

Assessing Student Learning

In the 2021-22 school year, school leadership teams took time to assess where students were at the conclusion of the previous year and identified which tools and engagement efforts could help meet the needs of those struggling at any level. Students were facing many challenges from the abrupt changes they faced in the previous year and the process of adapting back to the full-time, in-person learning environment. Each school developed a comprehensive plan that included tiered systems of support for academics and social-emotional needs.

In the context of student learning and postsecondary preparation, it was determined that during these altered school years, high school students missed opportunities to complete all that they typically would have. This inequity applied to both academics and social-emotional learning (SEL), leaving some populations of students at risk of finishing school without the necessary knowledge to be successful in the future. Upon realizing the extent of skills and behaviors that were lacking, school leaders made efforts to pivot toward professional development and supporting teaching and learning.

Addressing Pandemic Impacts

Interventions proved to be critical for each school, as well as universally available tutoring and an enhanced summer school program. These additional elements of support have proven to be successful in catching students up and helping to address individual needs. Additionally, the district adopted an SEL screener to identify and work with students who are struggling to feel the belonging, grit, and perseverance needed to continue to work toward their goals. More than 90 percent of secondary students participated in the initial screening, and data showed significant need in the areas of grit and emotional regulation. By the end of the school year, favorable grit scores increased from 47 to 52 percent for high school students and from 42 to 45 percent for middle school students. Favorable emotional regulation scores increased from 45 to 47 percent for high school and from 37 to 38 percent for middle school.

For the 2022-2023 school year, USD 204 hired a school improvement specialist and five instructional coaches (one for each building in the district), with the goal of addressing learning loss, achievement gaps, tiered support, and curriculum and instruction. This team has analyzed student performance data, resources, and best practice instructional strategies, ensuring vertical curriculum alignment throughout the district. In addition, the coaches provide professional development for teachers, model effective instructional strategies, and provide support for effective use of resources to meet the needs of all students. In addition, these individuals work together to ensure all at-risk groups, including low-income families, students of color, English learners, and students with disabilities, are achieving at the highest level.

Continuing Challenges

Like many education agencies, USD 204 continues to experience challenges with staffing. In the past few school years, facing a shortage of substitute teachers, as well as specific regulations for handling potential COVID-19 cases, schools often had to address staff shortages internally by combining classes or pulling instructional staff from other areas of the building. The district worked with a staffing agency and the state Board of Education in 2021-22 to address substitute shortages through incentives, increased wages, and alternate hiring options. This helped schools to focus on instruction and classroom climate.

Moving Forward

USD 204 welcomed students back for the 2022-2023 school year, now able to provide meaningful in-person learning opportunities with few pandemic-related limitations. The efforts during the previous school year helped the district realign learning and refocus students and staff despite the setbacks experienced during school closures and adjusted learning models.

Despite the challenges the district has faced in recent years, students are engaged in learning and working toward a successful completion of the school year with ongoing supports in place. USD 204 has worked to ensure that learning environments and building climates support the academic and social-emotional needs of all students and staff. This is an ongoing process, and the district remains optimistic that academic expectations will continue to be met and students will show true growth as the school community moves forward.

Milwaukee Public Schools (WI)

When Milwaukee Public Schools (WI) (MPS) was ordered to shut down in-person operations due to the COVID-19 pandemic on March 13, 2020, district leaders were not prepared to instantly switch to online learning. Immediate responses focused on getting educational materials and internet access to students, as well as ensuring that students had food. The district set up sites in central locations where families could access internet hotspots and pick up needed materials: educational packets in English and Spanish for every grade level, meals, and devices.

The district's digital divide became more obvious during shutdowns, as the free internet access offered by an area provider proved more complicated to get than had been claimed, and families could not use it if they owed money to the company. Access to necessary technology also was a struggle, as was transferring all work to electronic formats.

Because Milwaukee had much higher numbers of COVID-19 infections and deaths than suburban areas, the district stayed fully virtual until April 2021. Many other districts and private schools had gone back to in-person instruction, at least within a hybrid schedule. MPS, on the other hand, retained its mask mandate through spring 2023.

Changes to Data Collection

Shifts in the district's data collection processes began when district leaders agreed that students would not be penalized due to adjusted learning models and other pandemic-related changes. Significant attention was directed to students who were at risk of failing, especially those whose grades could keep them from graduating. At the high school level, MPS set up several systems to support data collection related to course completion and graduation, including making district teachers, staff, and administrators teachers of record and offering online programmatic coursework for credit to help students pass courses.

In addition, the Wisconsin SEA provided a waiver for typical graduation requirements. Under normal circumstances, MPS students would need to meet both state graduation requirements and additional local requirements, such as service learning and electives. Those additional requirements were waived so that students only had to meet minimum requirements for the state to graduate.

Data Challenges and Solutions

Along with greater flexibility came some challenges in data collection and reporting. District leaders needed to determine how to take attendance effectively and fairly during a pandemic, resolving questions like what attendance means in asynchronous lessons. MPS often found these answers were needed more rapidly than the SEA could provide them in the 2020-21 school year.

When the district went back to in-person learning, students out on quarantine and submitting work asynchronously were not marked absent. The pandemic also inspired a permanent change to how attendance data are collected for students who are out of school for illness-related absences but still submitting work: They no longer are counted as absent.

MPS also faced the challenge of behavioral data and their outcomes. New behavior issues emerged during remote learning: Students acting out during class, taking their devices out of the learning environment, or being disrespectful to others since they knew they could not be sent to the office. The district did not have existing codes to report these behaviors, much less strategies for how to respond. Traditional disciplinary responses like suspensions no longer existed, nor were there clear policies for what should be reported as an infraction. Data leaders recognized that they needed to take new perspectives on both behavior and attendance during and beyond the pandemic. It took some time for these issues to stabilize within the district and across the state.

Finally, MPS also faced challenges in collecting and using student assessment data during school closures and adjusted learning models. In spring 2020, a waiver on state testing meant that the district did not conduct universal screeners or state accountability testing. MPS uses ACT testing (11th-graders) and elementary-level state tests, both of which are conducted in person, for state and federal accountability requirements. In spring 2021, when the state wanted to return to testing, high school students still were 100 percent virtual during the testing window. Therefore, the district's students could opt in for the ACT. The LEA's schools returned to in-person learning in April 2021 with only 3-4 weeks of the traditional state testing window open and many families choosing to stay virtual. As a result of these realities, only 43 percent of students in Milwaukee Public Schools were tested.

Reporting Challenges

The challenges MPS faced in data collection led to questions about the quality of any data reporting related to those years. The district does not have achievement or growth data for 2020. Though some students came back to in-person instruction in spring 2021, attendance was not uniform across grades or groups of students. At the high school level, seniors had to return to fulfill requirements for graduation, but students in grades 9-11 required to return were those who were at risk of failing. Higher achieving students could continue remote learning: Thus, the state tests were taken mainly by struggling students. On a state test for 9th and 10th grades, fewer than 15 percent of students were in attendance. In addition, some schools went into quarantine during the 2-week test period and could not take the test. The state required these schools to have alternate state report cards, which must be done for 2 years. Alternate report cards are used when schools do not have grades that are tested, have fewer than 20 full academic year students that tested, or are new schools.

These testing anomalies significantly influenced the yearly data, as well as the possibility of comparing the pandemic years to those years before or after. Growth scores now were based on groups of 30-40 children instead of hundreds. Current state report cards will have attendance, absenteeism, and graduation data from 2019-20, 2020-21, and 2021-22. These data are from the start of the pandemic, through virtual learning, and to a return of in-person learning when students still were quarantined at times through the year. MPS data experts explain that it will take at least 5 years for these metrics to level out—and schools were affected in different ways each year for several years. It has become part of the district data team's responsibility to make people aware of data anomalies within the state report card, the Every Student Succeeds Act (ESSA) reports, and any presentations. MPS data leaders meet the responsibility of sharing data anomalies through reports to the SEA, meetings with school board members to discuss data, and presentations of state and local data.

Moving Forward

Milwaukee data leaders state that the district is on a path to recovery, with state testing back to normal protocols. The district now is setting new trend lines with more consistent data and had about 95 percent state participation in testing at the elementary level last year.

However, leaders caution that the district must remain focused on the anomalies in the data that will influence any longitudinal comparisons for some time. Even in the 2023-24 school year, the 2-year delay in some data and multiple years of data included in the metrics will continue to affect reporting. MPS data experts advise that LEAs remain careful about what data are being tracked across districts and the state, and vigilant about consistency in what is being reported.

Utah State Board of Education

The Utah State Board of Education (USBE), as well as the state's LEAs, had a better foundation than many education agencies when the COVID-19 pandemic caused school closures to in-person learning, due to the SEA's significant investment in online platforms and 1:1 device programs over the past decade. Each LEA had options about the format in which they returned, but they needed to have a plan submitted to the SEA. In higher population centers, most districts established online-only schools to give parents this option, or parents could choose their child's regular school. LEAs also had to communicate regularly with local Department of Health offices to review COVID-19 risk levels: At a certain risk threshold, they had to go online. Otherwise, they could return in-person or hybrid. Throughout the first year of the pandemic, the Utah Department of Health and Human Services made several adjustments to its metrics and risk values, and schools needed to adjust accordingly.

LEAs also had flexibility in how they collected attendance data. They were required to report if they were solely using daily attendance records, solely using a learner validated process, or if they were using a combination of the two. USBE drilled down for more detail about how the LEAs defined attendance in the remote learning environment, such as logging in, being online for a certain amount of time, or turning in assignments. These arrangements were discussed and put in place quickly when the pandemic began.

USBE also performed periodic data captures to check attendance for funding purposes; they needed to verify that schools had the students reported in their enrollment totals. Online schools upload daily enrollment numbers, but the SEA also conducts certified captures three times a year. These numbers are crucial because Average Daily Membership (ADM) is used for funding, rather than average daily attendance.

Student Learning Data

Utah collected student data in two key areas: school schedules and learning modalities, and opportunity to learn surveys. For the first, they pulled data on Pandemic Electronic Benefit Transfers (PEBT) and National School Lunch Program participation, and tracked which schools were in person, hybrid, or closed for a few days. USBE knew each school schedule and reported current information to the state Department of Agriculture and Department of Workforce Services so the LEAs could receive pandemic funds to reimburse lunches and provide food stamps (EBT).

As the SEA made plans to administer end-of-year tests, data leaders wanted to collect student feedback on their opportunities to learn during pandemic-related school closures and adjusted learning models. The SEA went to test vendors and added survey questions at the end of tests that asked students for their views on their learning experiences over the year. The questions asked items such as

- Compared to a school year not affected by COVID-19, how much do you feel you learned this year?
- How often did you have access to the following for online learning? (computer, tablet, good internet)

These questions were added to federally required assessments for grades 3-8 and to a state test for grades 9-10.

Data Analysis

In collaboration with a nonprofit educational assessment consultancy, USBE conducted an analysis that compared school closures, schedules, and the student learning survey. Following recommendations from an educational measurement and assessment psychometrician, analysts

conducted a match rate, fair trend analysis, and equity check. The Opportunity to Learn survey was administered only once per student but was not tied to a certain subject matter test. The team looked closely at the participation rate as part of the equity check, asking, "Who did and did not take the assessments, and what does that participation rate tell us?"

Results indicated that students who had access to a teacher and stayed engaged throughout the year were more likely to be successful academically, and the impact of COVID-19 on their learning was not as strong. The analyses did not show statistically significant findings, but trends. If students felt they had access to a teacher, they performed better. There was not a strong correlation between student success and any particular modality or schedule.

Timeline for Data Analyses

USBE's assistant superintendent of student achievement spearheaded the data collection effort. SEA leadership spoke with assessment directors early in the 2020-21 school year and acknowledged the challenges to collecting quality data. By November and December, the SEA began having discussions with the Technical Advisory Group about Opportunity to Learn data. Vendor contracts were completed by March so that the survey questions could be added to the assessments that went out at the end of the school year. The team then conducted analyses over the summer.

Challenges and Solutions

USBE faced some challenges in collecting the Opportunity to Learn data. Some LEAs were hesitant to administer the survey, saying they had their own data and did not want to give students extra survey questions. Ultimately, the SEA was able to create a fair amount of buy-in: Of 41 LEAs, only a few did not administer it.

Asking for schools' learning modalities also was a challenge. With a range of modalities, even differing among subjects like language arts, math, and science, it was too difficult to adjust data systems to collect this level of detail by subject. The SEA would have preferred to have these data but accepted that it would not be feasible for all student information systems (SISs) and teachers with different schedule types to collect and enter this information. LEAs were not able to track what was going on in each classroom, as they were focused on keeping current with which modalities each school was using.

Moving Forward

USBE's data leaders hope to use the information gained through this data collection—both the actual data and the lessons learned about the process—as they move forward and continue to assess opportunities to learn in different contexts. There still are many questions about how and when longitudinal assessments will be valid and reasonable to conduct again. Education experts are not in consensus as to when agencies will have new baseline data, nor about how they should work with it when they do. Rather than looking for single, one-size-fits-all solutions, policymakers may see more reasons to develop plans that differ by location and level of disruption experienced.

Fairbanks North Star Borough School District (AK)

As the COVID-19 pandemic expanded throughout spring 2020, leaders in Fairbanks North Star Borough School District (AK) (FNSBSD) quickly moved from extending the district's spring break to remote learning for the rest of the semester. The speed of this shift meant that state testing was cancelled, course grading was adjusted, and instruction was centered on core content. After months of preparation during the summer, the district continued remote learning during fall 2020.

Collection of student learning data was impacted directly—particularly the district's ability to collect comparable data to those from years prior. FNSBSD was not administering fall interim assessments, and attendance temporarily was reported at 100 percent based on shifts to learning models. In addition, challenges emerged related to tracking and reporting variables such as discipline incidents and dropouts. Data leaders knew they needed to use creative processes to track student information.

Changes to Attendance Data

FNSBSD's information systems office collaborated extensively with the data team about collecting, analyzing, and using student data. After much deliberation and discussion, these teams decided to not attempt to track attendance and instead report all remote learners as present. The district previously had reported 100 percent attendance for correspondence programs and viewed the shift to remote learning as equivalent to the structures of pre-pandemic correspondence programs across the state.

The district lost about 15 percent of students in 2020-2021 versus the previous year. In response, the data team created live enrollment dashboards for administrators to track more closely (and frequently) the current enrollment. Noting increasing interest in data that are "live" or more current, the district has done the same for other pieces of information, such as economically disadvantaged demographics and attendance rates.

In spring 2021, the school board determined that in-person instruction would be optional. A requirement for schools to identify these in-person students turned out to be a critical decision. FNSBSD received several requests to provide this percentage, for purposes such as reporting PEBT statistics and requests for data from the state senator's office.

The Importance of the Advanced Early Warning System

FNSBSD has an advanced early warning system (AEWS) that compiles much of the districts' student learning data and any other data that can support prediction of dropout. The AEWS is reviewed often and assessed for sensitivity, specificity, and accuracy of predicting dropout. Data leaders note that the system helped tremendously during the pandemic in tracking which students needed additional support, though its usability was hindered somewhat due to the impacted data such as attendance (only reported at 100 percent during the remote learning), discipline incidents (very few during remote learning), and tracking of dropout.

The AEWS continues to be a powerful tool to identify students in need and to identify schools with additional need for decision-making regarding where grant-funded or program staff should be allocated. FNSBSD often has fewer available staff members than students for services, and the AEWS can be used to define students at varying levels of need.

Student Learning Data

The district collects grades, grade point averages for every grade level, interim and summative assessment performance, and various other data to identify students with need for additional support. The AEWS identifies students at low, medium, and high risk of dropout within one year. This system was considered a vital tool in addressing supporting students with academic performance that had been impacted during the pandemic.

Beyond the information from the AEWS, FNSBSD conducted analyses of the limited assessment data available in order to review pre-pandemic performance versus current performance of students. The district also reviewed shifts in grades by student demographics and found similar results to other districts and states across the nation. Results indicated some decrease in performance for reading but greater decreases in math. In addition, the decreases were more prominent for economically disadvantaged students.

Challenges and Solutions

The LEA's biggest challenges in data collection during the pandemic were the changes to nearly every process of collecting, analyzing, and using student learning data. The data team essentially needed to address each issue individually, meeting to discuss and plan strategies. All data were impacted and required creative thinking to provide the best and most efficient support for schools. Attendance, enrollment, dropout, discipline, assessment, graduation, and all systems of information were altered and needed intense scrutiny to determine how to "right the ship" through the public health emergency. Data leaders note that the challenges during the pandemic that impacted the reliability and validity of student data declined significantly when the LEA shifted back to most students participating in in-person instruction.

As FNSBSD continues to recover from impacts of the pandemic shutdowns and changes to learning models, the LEA is actively assessing student data in relation to other critical data points, such as college graduation. To best support principals and teachers as they support students, data leaders are expanding their understanding of the implications of assessment data and how these data apply to student outcomes of interest in a practical sense.

Moving Forward

LEA data experts emphasize the need for all team members to be included when designing strategies to allow an agency to withstand crises. These efforts require substantial support and innovative thinking from all staff across the school district. As the correspondence program now is one of the largest "schools" in the district, having tripled in size compared to pre-pandemic numbers, FNSBSD is facing an altered education landscape that will require flexibility and thoughtful data collection and implementation.

Guam Department of Education

In March 2020, the governor of Guam declared the territory on emergency level due to the COVID-19 pandemic and all public schools were shut down to in-person learning. The Office of Curriculum and Instructional Improvement (C&II) of the Guam Department of Education (GDOE) took the lead in addressing the shutdown and how the department would continue to serve students.

Responding to the Shutdown

In the first week of the school shutdown, the immediate recourse from GDOE was to move learning online, but the limited availability of laptops and other devices, as well as the absence of internet connectivity in many lower-income homes, pushed schools to provide hard copies of learning lessons. The C&II organized working groups to address the immediate need. These included the Committee for School Curriculum and Distance Learning Programs and the Curriculum and Grading Policy Working Group, the Policy Working Group, the Community Learning Centers and Community Wi-Fi Hot Spots, Communication and Public Relations Task Force, and Finance.

The working groups developed plans guided by and aligned with the government of Guam's public health directives, and thereafter, the government's recovery plan. All plans for distance learning operated with the expectation of student work being graded and used as evidence

of learning for students' final grades. The principle of equity and equitable treatment of all students guided the planning and the activities during the pandemic, at recovery, and moving forward to date.

As the district implemented online classes early in the pandemic, interaction with teachers and students went beyond online engagement, to include the distribution and submission of assignments from students to ensure that students without regular access to equipment or the internet had equitable access to the curriculum, instructional materials, and supports. Every Friday was student intervention and parent support day. Teachers worked directly or remotely with selected students who needed targeted interventions, responded to student or parent questions regarding the learning materials, reached out to students who were falling behind, and provided additional time to students in need. Fridays also were the pickup day for hard copy lessons and the submission day for assignments.

Adjusting Attendance Data Collection

Student attendance data was a top priority. Attendance was redefined according to the learning model implemented. If student was on hard copy mode, pickup of lessons and submission of assignments made them "present." Students in online mode were "present" if their on-camera image was a live image (not a still photo or image) as an indication that the student was engaged. Traditional attendance data collection was used for students in face-to-face mode.

Student Learning Data Collection and Analysis

GDOE collected student learning data in several areas: learning modes, attendance, engagement, assessments, learning assessment surveys, and student grading. The learning assessment surveys were conducted by GDOE's Research, Planning, and Evaluation (RP&E) Division. Along with the agency's Communication and Public Relations Task Force, RP&E conducted online surveys among middle and high school students, parents of these students, all teachers across all grade levels, school staff, and school administrators. A total of 12,632 respondents participated in the survey; this included 3,862 students, 5,739 parents, 1,810 teachers (98 percent of all GDOE teachers), 1,719 school personnel, and 260 district officials. The survey highlighted respondents' perceptions about the effectiveness of the learning modes, available resources, readiness of teachers and students, familiarity with safety protocols, preference for face-to-face versus online or hard copy, social and behavioral supports for learning, and perceptions about school readiness for in-person instruction. Responses indicated satisfaction across groups in each category and showed a majority preference for a return to face-to-face learning. The results of these surveys guided the agency's distance learning task forces and the Guam Education Board (GEB) in coordinating the necessary policies, planning, and implementation of instructional decisions.

The Policy and Grading Working Group focused significant attention on student grading and presented information to the GEB. In October 2020, the GEB approved a set of policies meant to address concerns by teachers, parents, and students related to grading, which resulted in a new grading system.

The grading policy adopted was as follows:

1. NG (or No Grade)—No contact with student or no evidence submitted. This grade remained until changed by the teacher or school official and did not automatically convert to an "F" as it had under previous grading policy.
2. NE (Not Enough Evidence)—Not enough evidence was submitted to determine passing.
3. P (Pass)—Enough evidence was submitted or completed to determine passing.

The policy adopted by the GEB allowed work assigned and completed from the first quarter to transition easily to the second quarter without having any negative effects on the final first quarter grades. Students received progress grades rather than final grades. As a result, students had the opportunity during the second quarter to catch up in submitting evidence of learning.

Toward the period leading to reopening of face-to-face learning, GDOE developed and implemented a tier-graded system based on three criteria: Engagement, Work Submission, and Work Accuracy and Completion.

a. Excellent/Meets grade level standards (M)—Consistently demonstrated all three criteria
b. Passing/Satisfactory (S)—Consistently demonstrated two of the three criteria
c. Needs Improvement/Incomplete (I)—Demonstrated only one of the three criteria
d. No Grade/No Show—No evidence, no contact, cannot assess any of the three criteria

Challenges and Solutions

GDOE did not face serious challenges in implementing the three modes of learning or in collecting the necessary data to make informed policies and decisions. The response rate to the learning surveys was high, as was the support and cooperation from the parents, the community, the government administration, and the GEB.

The only major challenge was the lack of online learning devices and connectivity. However, the previous school year's carryover and remaining funds were identified and used to support distance learning via equipment, internet access, acquisition of the learning management system, materials for hard copy lessons, and student learning materials aligned with standards. Additionally, the SEA's 2020 Consolidated Grants application was geared to support distance learning. Federal Education Stabilization Funds (ESF) also were dedicated to curriculum and distance learning, social and emotional wellness, student/personnel safety, and personal protective equipment.

The SEA also encountered the minor challenge of teachers who were not familiar with online instruction. A training needs assessment was conducted immediately to determine each teacher's level of confidence in using online technology. The results of the needs assessment were used to design the professional development for each category/level of teacher technology use.

Moving Forward

GDOE used many data points to inform the policies created, adjusted, or implemented during the pandemic and beyond. Though questions about the long-term validity of the assessments and measures used continue to be part of ongoing discussions, GDOE has learned from the challenges posed by the pandemic, which prepared the district for the challenges that arose in 2023, which included a shorter timeframe for school safety inspections and the aftermath of the Super Typhoon Mawar in late May 2023. The lessons learned during the pandemic and the resources acquired using federal funds to carry out online learning offered relief during these later crises.

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Related Resources

Related Federal Resources and Publications

National Center for Education Statistics (NCES) Resources

Impact of the Coronavirus (COVID-19) Pandemic on Public and Private Elementary and Secondary Education in the United States (Preliminary Data): Results from the 2020-21 National Teacher and Principal Survey (NTPS)

https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2022019

The 2020–21 NTPS collected data on the impact of the coronavirus pandemic on public and private schools, principals, and teachers during the 2019–20 school year. The report presents selected findings, using preliminary data, from coronavirus-related questions that were focused on how schools adapted to the coronavirus pandemic during the spring of 2019–20.

School Pulse Panel (SPP)

https://nces.ed.gov/surveys/spp/

The SPP for summer 2021 and school year (SY) 2021-22 is a new quick-turnaround study to collect extensive data on the impact of the COVID-19 pandemic on students and staff in U.S. public elementary and secondary schools, including information on learning loss mitigation strategies. Related survey questions:

- What did your school offer to help address pandemic-related learning needs?
- What types of programs or services were provided for special subpopulations?

U.S. Department of Education

COVID-19 Resources for Schools, Students, and Families

https://www.ed.gov/coronavirus/program-information#elsec

This webpage contains links to COVID-19 guidance, policies, and resources related to elementary and secondary education.

ED COVID-19 Handbook, Volume 2

https://www2.ed.gov/documents/coronavirus/reopening-2.pdf

Pages 18-32 of the handbook cover the topic "Addressing Lost Instructional Time." This section includes links to additional resources.

Strategies for Using American Rescue Plan Funding to Address the Impact of Lost Instructional Time

https://www2.ed.gov/documents/coronavirus/lost-instructional-time.pdf

This resource on lost instructional time provides best practices and evidence-based approaches to support educators as they implement, refine, and work to continuously improve their strategies for supporting students.

Regional Educational Laboratory (REL) Program Resources

Estimating Changes to Student Learning in Illinois Following Extended School Building Closures Due to the COVID-19 Pandemic

https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=6728&display=1

This study from REL Midwest examines data from 17 Illinois districts over five years, including four years prior to the pandemic, to measure how student learning changed in fall 2020 relative to fall terms prior to the pandemic. The study found that students in grades 4–8 scored lower than expected in mathematics following the onset of the pandemic, after adjusting for other factors.

COVID-19: Evidence-Based Resources

https://ies.ed.gov/ncee/edlabs/projects/covid-19/

This webpage includes links to evidence-based resources and information about learning in a remote environment and other considerations brought on by the COVID-19 pandemic. The section "Accountability and Assessment" includes the webinar *Rethinking Data for Improvement, Accountability, and Support Under COVID-19* (https://ies.ed.gov/ncee/edlabs/regions/southwest/events/2021/webinar-031821.aspx).

Related Organizational Resources

Northwest Evaluation Association (NWEA)

Learning During COVID-19: Initial Findings on Students' Reading and Math Achievement and Growth

https://www.nwea.org/research/publication/learning-during-covid-19-an-update-on-student-achievement-and-growth-at-the-start-of-the-2021-22-school-year/

In April 2020, NWEA released a set of projections of the potential academic impact of COVID-19 disruptions modeled on summer learning loss estimates. This report used fall 2020 data to present updated national research, informed by several guiding questions that explored how school shutdowns impacted student achievement at the start of the 2020–21 school year.

American Institutes of Research

National Survey of Public Education's Response to COVID-19

https://www.air.org/project/national-survey-public-educations-response-covid-19

This webpage has numerous links to resources regarding the study results and project briefs, which included administering a survey (https://www.air.org/sites/default/files/National-Survey-of-Public-Education-Response-to-Covid-19-2020.pdf) and interviewing school district administrators to provide actionable information to educators, policymakers, and researchers.

National Forum on Education Statistics Resources

***Forum Guide to Data Quality* (2023)**

https://nces.ed.gov/forum/pub_2023086.asp

This resource provides best practices from districts and states for maintaining quality data as these agencies regularly review and revise their methods for working with data, as well as their expectations for all staff who are responsible for education data and their quality. It also highlights ED efforts to improve data quality. This resource is intended to help districts and states seeking to improve or further develop their policies and practices related to data quality.

***Using Education Indicators: A Forum Guide for State and Local Education Agencies* (2022)**

https://nces.ed.gov/forum/pub_2022132.asp

This resource was developed to provide timely and useful information on education indicators, how their collection and use have changed over time, and how agencies use them strategically. This resource highlights best practices for using indicators, adjustments over time to the collection and use of indicators, shifts in types of relevant indicators, and what possibilities local and state education agencies (LEAs and SEAs) see for the effective use of indicators in the future.

***Forum Guide to Digital Equity* (2022)**

https://nces.ed.gov/forum/pub_2022098.asp

This resource is designed to help education agencies close digital equity gaps through the collection and use of digital equity data. This publication defines digital equity; explains the importance of having comparable, high-quality digital equity data; and discusses how those data can be used to identify issues, prioritize action, and create new programs or sustain existing efforts to address digital inequities.

***Forum Guide to Virtual Education Data: A Resource for Education Agencies* (2021)**

https://nces.ed.gov/forum/pub_2021078.asp

This resource is designed to assist agencies with collecting data in virtual education settings, incorporating the data into governance processes and policies, and using the data to improve virtual education offerings. This resource reflects lessons learned by the education data community during the COVID-19 pandemic and provides recommendations that will help agencies collect and use virtual education data.

***Forum Guide to Attendance, Participation, and Engagement Data in Virtual and Hybrid Learning Models* (2021)**

https://nces.ed.gov/forum/pub_2021058.asp

This resource provides an overview of best practices that will help education agencies collect, report, and use attendance, participation, and engagement data in different learning formats. It was developed as a companion publication to the 2018 *Forum Guide to Collecting and Using Attendance Data* and incorporates lessons learned by LEAs and SEAs during the COVID-19 pandemic.

***Forum Guide to Strategies for Education Data Collection and Reporting (SEDCAR)* (2021)**

https://nces.ed.gov/forum/pub_2021013.asp

This resource was created to provide timely and useful best practices for education agencies that are interested in designing and implementing a strategy for data collection and reporting, focusing on these as key elements of the larger data process. This new resource is designed to be relevant to the LEAs and SEAs of today, in which data are regularly collected for multiple purposes, and data collection and recording may be conducted by many different individuals within an agency.

***Forum Guide to Data Governance* (2020)**

https://nces.ed.gov/forum/pub_2020083.asp

This resource provides timely and useful best practices, examples, and resources for agencies implementing or updating their data governance programs. It provides an overview of data governance; discusses effective data governance practices, structures, and essential elements; describes how to meet privacy and security requirements while also meeting data accessibility and sharing needs; and includes detailed case studies from education agencies in their data governance efforts.

***Forum Guide to Early Warning Systems* (2018)**

https://nces.ed.gov/forum/pub_2019035.asp

This resource provides information and best practices that will help education agencies plan, develop, implement, and use an early warning system in their agency to inform interventions that improve student outcomes. This document focuses on early warning systems and their data from the perspective of the education data community.

***Forum Guide to Collecting and Using Attendance Data* (2018)**

https://nces.ed.gov/forum/pub_2017007.asp

This resource offers best practice suggestions and features real-life examples of how attendance data have been used by education agencies. A set of voluntary attendance codes that can be used to compare attendance data across states, districts, and schools is included, as well as tip sheets for a wide range of education agency staff who work with attendance data.

***Forum Guide to Education Data Privacy* (2016)**

https://nces.ed.gov/forum/pub_2016096.asp

This resource provides LEAs and SEAs with best practice information to use in assisting school staff in protecting the confidentiality of student data in instructional and administrative practices. LEAs and SEAs also may find the guide useful in developing privacy programs and related professional development programs.

***Forum Guide to Taking Action with Education Data* (2013)**

https://nces.ed.gov/forum/pub_2013801.asp

This resource provides practical information about the knowledge, skills, and abilities needed to identify, access, interpret, and use data to improve instruction in classrooms and the operation of schools, LEAs, and SEAs.

***Forum Guide to Data Ethics* (2010)**

http://nces.ed.gov/forum/pub_2010801.asp

While laws set the legal parameters that govern data use, ethics establish fundamental principles of "right and wrong" that are critical to the appropriate management and use of education data in the technology age. This guide reflects the experience and judgment of seasoned data managers; while there is no mandate to follow these principles, it is hoped that the contents will prove a useful reference to others in their work.

***Forum Curriculum for Improving Education Data: A Resource for Local Education Agencies* (2007)**

https://nces.ed.gov/forum/pub_2007808.asp

This curriculum supports efforts to improve the quality of education data by serving as training materials for K-12 district and school staff. It provides lesson plans, instructional handouts, and related resources, and presents concepts necessary to help schools develop a culture for improving data quality.

***Forum Guide to Education Indicators* (2005)**

https://nces.ed.gov/forum/pub_2005802.asp

This resource to help the education community better understand how to appropriately develop, apply, and interpret commonly used education indicators. The resource defines the concept of an education indicator; describes the process of establishing a body of education performance and context indicators; and describes 44 education indicators that were commonly used to measure the status of, or change in, education institutions across the nation.

***Forum Guide to Building a Culture of Quality Data: A School & District Resource* (2004)**

https://nces.ed.gov/forum/pub_2005801.asp

This resource was developed to help school districts and schools improve the quality of data they collect and to provide processes for developing a "Culture of Quality Data" by focusing on data entry–getting things right at the source. This resource shows how quality data can be achieved in a district or school through the collaborative efforts of all staff.