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CCSSO

Council of Chief State School Officers™

Restart & Recovery:

Home Digital Access Data Collection:

Blueprint for State Education Leaders

In partnership with

Education SUPERHIGHWAY

THE COUNCIL OF CHIEF STATE SCHOOL OFFICERS

The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, the Bureau of Indian Education and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public.

Restart & Recovery:
Home Digital Access Data Collection: Blueprint for State Education Leaders

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CONTENTS

INTRODUCTION

The COVID-19 pandemic has created a renewed urgency for closing the digital divide in America's education system. Schools had to quickly pivot to online learning, turning living rooms into classrooms for [55 million students](link)[1] at the peak of the crisis. Without access to an Internet connection or dedicated learning device at home, [millions of the most vulnerable students](link)[2] were at risk of falling significantly behind during school closures. Closing this digital access gap has become a priority, as many local education agencies (LEAs) anticipate continued reliance on remote or blended learning delivery when school returns in the fall. Addressing this challenge will help our schools navigate the pandemic more effectively in the short-term and be a crucial long-term investment in ensuring all learners can access Internet connectivity and digital learning.

The first step in solving this pressing equity challenge is to conduct high-quality data collection to identify which students are impacted. The [Council of Chief State School Officers (CCSSO)](link) has partnered with the national nonprofit [EducationSuperHighway](link) on their [Digital Bridge K-12](link) project to develop a blueprint for how state leaders can facilitate this data collection. Special thanks to the [State Educational Technology Directors Association (SETDA)](link), the [U.S. Department of Education](link), and the [Center for Democracy & Technology (CDT)](link) for providing guidance and input in an advisory capacity.

This document is intended to be a jumping-off point for state education agency (SEA) leaders. Whether your state has historically been collecting data on student home digital access or is just starting to contemplate this challenge, this blueprint will offer constructive guidance. Note that it is a living document that will be updated as we receive feedback from the community and continue to identify effective strategies and important considerations.

BACKGROUND AND CHALLENGES

When COVID-19 caused nationwide school closures in the spring of 2020, LEAs undertook incredible efforts to quickly transition to online learning. Many schools, recognizing that students without a device and Internet connectivity at home would be unable to participate, made a push to identify which learners needed additional supports. While some of these approaches effectively identified the need and enabled schools to deliver timely solutions, many LEAs encountered challenges like low survey response rates and inaccurate responses. Also, because there was limited coordination of these efforts across LEAs, the resulting data sets are inconsistent. Understanding these issues, SEAs now have the opportunity to provide guidance to school districts that will make home digital access data collection more effective and more consistent moving forward.

WHY THIS DATA COLLECTION IS CRITICAL

LEAs and SEAs need to move from understanding the estimated percentage of students who do not have adequate home digital access to understanding specifically which students do not have access, in order to connect those students to consistent, high-speed Internet.

Knowing which students lack home Internet access and/or a dedicated learning device enables LEAs to:

- Understand the impact that lack of home digital access has on learning outcomes

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1   Education Week (May, 15, 2020) [Map: Coronavirus and School Closures](link)
2   Common Sense Media and BCG (2020) [Closing the K-12 Digital Divide in the Age of Distance Learning](link)

- Identify and call out the digital access gap as an educational equity issue
- Target resources to students in need of digital access
- Determine the most effective Internet connectivity solutions, making sure to engage with local community and business leadership for input and implementation of solutions
- Gain leverage when seeking funding to help close the gaps

This information will enable SEA's to:
- Understand the impact that lack of home digital access has on learning outcomes
- Advocate to state and federal government for funding to close the digital access gap
- Direct state resources, including funding, to LEAs
- Share guidance with LEAs on how to use state and federal funding, including CARES Act funding, to support home Internet connectivity projects (see Appendix 1)
- Engage local Internet Service Providers to develop and implement effective, replicable solutions (e.g., assisting LEAs with aggregated procurement strategies)
- Facilitate data sharing, with appropriate security safeguards, for organizations that can help to implement digital access gap solutions

The SEA's Role in Home Digital Access Data Collection

The SEA's role is to create a framework for consistent data collection across LEAs and guide LEAs on best-practice strategies. The SEA's primary functions are to:

- Establish common data elements
- Recommend data management best practices
- Communicate guidance on data collection strategies

Additionally, as with all student data collection activities, the SEA has both a legal obligation and an ethical mandate to ensure that the collection and sharing of student information do not compromise their privacy, safety, or well-being. Please refer to the Student Data Privacy Considerations section of this document for more detailed guidance.

SEA Action Plan - Priority Steps for Back to School

1. Send a memo to LEAs emphasizing the importance and urgency of collecting students' digital home access data, and continue communicating guidance. Many states will want to simultaneously offer guidelines for LEAs on how to report this data to the SEA.

   Memo Example: Indiana Department of Education

2. Work with the Student Information System (SIS) vendors in your state to incorporate the students' digital home access data fields recommended in this blueprint into their SIS software. CCSSO is helping to coordinate cross-state asks to the SIS community.

   CCSSO Letter to SIS Vendors

3. Provide LEAs with resources to help them complete data collection.

   Digital Bridge K-12: Home Access Needs Assessment Playbook

DATA ELEMENTS

Establishing a set of common elements for collecting data about student home digital access will help school districts understand which pieces of actionable information they should be gathering. It will also help ensure that this data can be aggregated at the state and national levels with confidence.

The following data fields were identified in collaboration with SEAs, LEAs, and industry experts. By collecting the following information about every student, administrators will be able to identify (1) whether a student has access to Internet connectivity and/or a dedicated device at home and (2) whether that access is sufficient for high-quality online learning. Note: This recommended data framework is in the process of being aligned with the standards organizations.

Data Field	Question	Response Options
Digital Device	What device does the student most often use to complete schoolwork at home?	Chromebook Desktop computer Laptop computer Tablet Smartphone Other None
Device Access	Is the primary learning device a personal device or school-provided? Is the primary learning device shared with anyone else in the household?	Personal - Dedicated Personal - Shared School Provided - Dedicated School Provided - Shared None
Internet Access in Residence	Can the student access the internet on their primary learning device at home?	Yes No
Internet Access Type in Residence	What is the primary type of internet service used at home?	Fiber Cable DSL Microwave Satellite Dial-up Personal hotspot/smartphone School-provided hotspot Unknown Other None
Internet Performance	Can the student stream a video on their primary learning device without interruption?	Yes, with no issues Yes, but not with consistent quality No

DATA STANDARD

A next and critical step will be to codify these initial data elements into a data standard to ensure an ability to share and analyze comparable data. CCSSO will take the lead on working with existing standards bodies to facilitate the community development, vetting, and release of appropriate data standards. This work will begin with the [Common Education Data Standards (CEDS)](#), as the source of education data dictionary standardization, and expand out from there to include interoperability and implementation standards and efforts.

DATA MANAGEMENT BEST PRACTICES

The home digital access data LEAs collect should be stored in a common repository that is secure, easy to update, can produce customizable reports and is readily accessible to education leaders. This data would be best captured in the SIS, which would allow for seamless aggregating and reporting back to the SEA, and integration across other student data points (e.g., demographic and academic data). This could be valuable for gleaning deeper insights into which populations are most affected as well as impact on learning outcomes.

Opportunity to Engage with SIS Vendors

The spring 2020 COVID-19 school closures were unforeseeable and have necessitated short-order data collection. Moreover, LEAs are now facing aggressive timelines and will likely bump up against SIS limitations. Because the data fields recommended above are not yet built into most systems—and given that SIS vendors ordinarily require significantly more lead time to develop required changes— some LEAs may not be able to utilize their SIS for managing this data in the immediate term. In these instances, they may need to rely on ad-hoc tools like [spreadsheets](#). SEAs are encouraged to support LEAs by engaging with the SIS vendor community to underscore the urgency of this issue and encourage them to make the needed adjustments for the 2020-2021 school year. Some states have already taken the lead on this, and CCSSO is coordinating a cross-state effort to make a [collective "ask" of the SIS vendor community](#). The Ed-Fi Alliance has been working closely with their community to develop a working draft of [Ed-Fi's Digital Equity Collection](#), providing a responsive option that some vendors are proceeding to incorporate with the understanding that a robust data standard is under development.

PROVIDING GUIDANCE FOR LEAs ON DATA COLLECTION STRATEGIES

SEAs should promote the following best practices for schools:

- **Embed data collection into existing processes.** Determining students' home digital access status is a priority for the 2020-21 school year, and it will continue to be a concern for schools until equitable digital access is ubiquitous. To ensure comprehensive and consistent data collection, LEAs are encouraged to integrate the data-collection process into existing operations (like registration and enrollment).

- **Infer access gaps from student engagement.** If an LEA's registration timeline does not align with the start of school, the LEA should leverage the data already available and analyze indicators of distance-learning engagement to infer which students may not have home digital access. For example, schools could identify those students who have not "attended" online learning or have not logged on to core distance-learning applications. Some schools also could analyze Internet traffic on school-provided, take-home devices to infer which students lack home connectivity.

- **Conduct targeted outreach.** After prioritizing segments of students who may not have digital access, LEAs are encouraged to conduct a targeted survey of, and direct outreach campaign to, impacted families.

EducationSuperHighway's Home Access Needs Assessment Playbook contains tools and resources to support school districts in these efforts. The playbook, based on best practices gathered from LEAs across the country, includes:

- A data collection tool

- A question bank for school districts (aligned with data elements outlined in this blueprint)

- Call scripts and email templates (available in English or Spanish)

- Case studies of LEAs that have successfully collected home digital access data

- A password-protected mapping tool that enables LEAs to develop strategic solutions, by uploading their home digital access data and overlaying available ISP options sourced from FCC Form 477 data to more accurately locate and resolve the access gaps.

How one SEA is using these principles to overcome the home digital access data challenge

Bridgeport Community Schools know that about 25% of their students do not have access to the Internet, but they can't identify which students they are with confidence. To support their teachers in planning to deliver solid instruction in the coming year—whether in person or remotely—the district leadership knows they need a "full-court press" on collecting this data for each student. This is also vital if they want to leverage their CARES Act funding and resources from local philanthropic and community supporters to ensure an optimal learning infrastructure. The district leadership team has decided on a three-prong strategy to obtain and maintain this data for the long-term:

1. Enrollment / Registration 2020-2021 campaign

2. Follow-up phone campaign

3. Collaboration with SIS provider for longer-term, efficient data management, and reporting

Using the data fields established by this blueprint, Bridgeport has identified how to use its registration process to identify home digital access gaps. Trained school volunteers will follow up after fall registration to seek clarification or to track down data missed during the registration process, using the phone scripts provided in the playbook. These strategies incorporate language developed by the district communications department explaining why this data is needed and affirming the district's commitment to protecting the students' data.

STUDENT DATA PRIVACY CONSIDERATIONS

SEAs have a legal obligation to protect sensitive student information and an ethical mandate to ensure that any collection and sharing of students' information does not compromise their privacy, safety, or well-being. When collecting data on digital access, SEAs and LEAs need to consider:

- **Data minimization**: Collect each piece of data intentionally and tie it clearly to an intended use.
- **Legal compliance:** Keep in mind that this is Personally Identifiable Information (PII), so follow all protocols required by the Protection of Pupil Rights Amendment (PPRA), Family Education Rights and Privacy Act (FERPA), and any of the 130 state student privacy laws that are pertinent. (see Appendix 2 for SEA data agreement example)
- **Restrictions on access:** Specify that access to this data will be limited to only those who need it.
- **Secure collection**: States might opt for collecting this information via the SIS, manually (e.g., via a spreadsheet), or through a third-party survey vendor. However, any method used must be secure (e.g., not via email). If working with a third party, it will be key to have appropriate agreements in place which utilize a Family Educational Rights and Privacy (FERPA) exception.

Federal and state legal requirements will inform data sharing, as well. Sharing students' PII with Internet Service Providers (e.g., for procurement purposes), must be based on parental consent or a FERPA exception. In addition to legal compliance, PII-protective best practices for data sharing entail:

- **Restrictions on use**: No student data should be used for marketing purposes, now or later.
- **Retention and deletion**: A finite period should be specified during which the data may be maintained, after which it must be deleted through an agreed-upon method.
- **Written agreement**: Data sharing with SEAs and with Internet Service Providers should be based on a written agreement detailing use, access, and redisclosure restrictions; security requirements; and data retention and deletion requirements. The U.S. Department of Education has provided guidance and a checklist for drafting such agreements. (see Appendix 3 for SEA data agreement example)
- **Secure transfer**: Similar to the security requirements for data collection, data to be shared must be transferred securely–for instance, by secure FTP or similar protocols.

**Have feedback on this document? Please contact Brent Engelman at
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APPENDIX 1: RELEVANT CARES ACT/FEDERAL FUNDING RESOURCES

- Office of Educational Technology, Funding Digital Learning

- Dear Colleague Letter: Federal Funding for Technology

  This letter provides some examples of how funds under Titles I through IV of the ESEA, as amended by the ESSA, and the Individuals with Disabilities Education Act (IDEA), may support the use of technology to improve instruction and student outcomes.

- CARES Act Funding to support Remote Learning - The Department of Education received $30.75 billion through the CARES Act. There is much flexibility in how CARES Act funding can be spent, including to support technological capacity and access (including hardware and software, connectivity, and instructional expertise) to support remote learning.

  - Elementary and Secondary School Emergency Relief Fund - Approximately $13.2 billion; SEAs must subgrant at least 90% of state allocation to LEAs, but they are allowed to retain 10% for state-level activities. More information in the ESSER FAQ download this PDF.

  - Governor's Emergency Education Relief Fund - Approximately $3 billion awarded as grants to governors' offices by formula; governors' offices may provide sub grants to LEAs, institutions of higher education, or "education-related entities." More information in the GEER FAQ, and A-16 specifically addresses the use of funds for distance learning download this PDF.

APPENDIX 2: DATA USE AGREEMENT BETWEEN SEA AND LEA

- Example from Wisconsin Department of Public Instruction

APPENDIX 3: DATA USE AGREEMENT BETWEEN SEA AND VENDOR

- Example from Wisconsin Department of Public Instruction