Forum Opening Session
Monday, August 7, 2023

Forum Welcome
Forum Chair Georgia Hughes-Webb, West Virginia Department of Education, welcomed Forum members to the Summer 2023 Forum Meeting in Bethesda, Maryland.

Georgia introduced Gail M. Mulligan, National Center for Education Statistics, U.S. Department of Education (ED), who gave welcoming remarks. Gail reviewed recent Forum achievements and provided an update on current Forum projects. She thanked Forum members for their time, work, and commitment over the past year.

Recognition of Completed Projects
Georgia presented certificates to recognize the contributions of the members that developed the *Forum Guide to Data Quality* and *Using Education Indicators: A Forum Guide for State and Local Education Agencies* (https://nces.ed.gov/forum/pub_2022132.asp).

Forum Working Group Panel Discussion
Georgia introduced Allen Miedema, Northshore School District (WA), Cheryl L. VanNoy, Saint Louis Public Schools (MO), and Jon Wiens, Oregon Department of Education. The Forum Working Group opening session panel presented on three Forum working groups.

Data Literacy—Allen provided an update on the Data Literacy Working Group. The working group is developing a resource that provides common practices and real-world case studies to help local and state education agency (LEA and SEA) staff promote an understanding of education data among school personnel and stakeholders such as students, parents and other caregivers, policymakers, and community organizations. This guide will discuss how data literacy needs vary among stakeholders, identify best practices that agencies are using to help different audiences understand education data, and describe considerations for each audience to engage with data more fully. The resource also suggests strategies to increase and improve educators' ability to have meaningful conversations with a variety of stakeholders regarding the interpretation and use of education data to support students.

Technology for Teaching and Learning—Cheryl presented on the Technology for Teaching and Learning Working Group. The working group is developing a guide to help education agencies appropriately select, responsibly manage, and effectively support the use of educational technology. This resource serves as a companion publication to the 2019 *Forum Guide to Technology Management in Education* (https://nces.ed.gov/forum/tech_management.asp), which was developed to help education agency staff understand and apply best practices for selecting and implementing all types of technologies used across education agencies. The new resource specifically focuses on educational technology for teaching and learning, concentrating on the policies, processes, and best practices involved in the planning, selection, implementation, management, support, and evaluation of educational technology. Cheryl outlined how the forthcoming document aims to define educational technology and explain how technology can enhance teaching and learning; provide best practice information related to planning, selecting, implementing, managing, supporting the use of, and evaluating educational technology for use in instructional settings; and discuss common considerations related to educational technology.

Student Learning Data During Pandemic School Closures and Beyond—Jon gave an update on the Student Learning Data During Pandemic School Closures and Beyond Working Group. Administering assessments, collecting data, and utilizing assessment data all were impacted by the coronavirus disease (COVID-19) pandemic. This working group was convened to discuss how different agencies are assessing and identifying the ways school shutdowns and adjusted learning models may have affected various student characteristics, approaches, and behaviors that influence learning. The resource highlights these agencies' plans and strategies for using data to create a road to recovery for students and schools, and offers lessons learned, continuing challenges, and case studies from SEAs and LEAs that provide additional context for readers. This guide aims to help agencies consider how their data collection and use were affected; create or enhance their strategy for learning recovery; and improve policies and practices related to student learning data.

Forum members engaged the presenters in a discussion that addressed

- data literacy among stakeholders including principals, superintendents, and parents, and strategies agencies can employ to meet their data needs;
- the gap that sometimes occurs between the information consumers want and the data that can be supplied;
- the importance of using education data for the benefit of students;
- that education agencies should first define what problems new technologies should solve, and evaluate what new challenges the technologies may create, before implementing new technologies;
- providing teachers with support for the use of educational technology that is tailored to their experience levels;
- applying data visualization best practices to communicate with internal education stakeholders, such as educators; and
- how collaboration between different areas of education, including academics, assessment, and accountability, can help students grow.

Forum Joint Session

Monday, August 7, 2023

Recognition of Completed Project

Georgia presented certificates to recognize the contributions of the members that developed the *Forum Guide to Discipline Data* (https://nces.ed.gov/forum/pub_2023050.asp).

Joint Session: Cybersecurity in SEAs and LEAs

Georgia introduced Steven Hernandez, U.S. Department of Education, who presented on best practices for SEAs and LEAs to improve their cybersecurity. Steven shared that ransomware has become the most popular and impactful cybersecurity threat across all sectors, with education now being the top sector that attackers target. Attackers are persistent, sophisticated, and finding new ways to operate. The most used methods for attacking education agencies include compromised credentials, software and cloud-based vulnerabilities, malicious emails, and phishing.

Steven recommended that agencies first identify and understand their vision and mission, then conduct a business impact analysis, before conducting tabletop exercises. Tabletop exercises are small-group discussions that walk through a cybersecurity scenario and the courses of action an agency or organization will need to take before, during, and after an emergency or incident to lessen the impact. These exercises help agencies assess plans and resources and facilitate understanding among key decision-makers and stakeholders. Federal resources for tabletop exercises include:

- Contingency Planning Guide for Federal Information Systems: https://csrc.nist.gov/pubs/sp/800/34/r1/upd1/final
- Cybersecurity and Infrastructure Security Agency (CISA) Tabletop Exercise Packages: https://www.cisa.gov/resources-tools/services/cisa-tabletop-exercise-packages

Cybersecurity best practices include

- having an actionable plan and proper technology and services in place before an intrusion occurs;
- having appropriate authorization in place to permit network monitoring;
- ensuring organizational policies align with cyber incident response plans;
- establishing relationships with cyber information-sharing organizations;
- leveraging cloud software as a service (SaaS) as much as possible;
- leveraging Federal Risk and Authorization Management Program (FedRAMP)[1] and StateRAMP[2] systems; and
- instituting zero trust security architecture, in which it always is assumed that the network is hostile; external and internal threats exist on the network; network locality is not sufficient for deciding trust in a network; every device, user, and network flow is authenticated and authorized; and policies must be dynamic and calculated from as many sources of data as possible.

Steven offered several federal resources from ED, CISA, the Federal Chief Data Officer Council (CDOC), the Federal Bureau of Investigation (FBI), the Secret Service, the U.S. Department of Justice (DOJ), and the National Security Agency (NSA):

- ED:
  - Student Privacy Policy Office: https://studentprivacy.ed.gov/
  - Readiness and Emergency Management for Schools Technical Assistance Center: https://rems.ed.gov
- Federal CDOC: *Data Sharing Working Group Findings and Recommendations*: https://resources.data.gov/resources/2021_DSWG%20Recommendations_and_Findings_508/
- CISA:

[1] FedRAMP is a government-wide program that promotes the adoption of secure cloud services across the federal government by providing a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services.
[2] StateRAMP, modeled in part after FedRAMP, provides state and local governments a common method for verification of cloud security.

    - *Known Exploited Vulnerabilities Catalog*: https://www.cisa.gov/known-exploited-vulnerabilities-catalog
    - *Implement Cybersecurity Measures Now to Protect Against Potential Critical Threats*: https://www.cisa.gov/sites/default/files/publications/CISA_Insights-Implement_Cybersecurity_Measures_Now_to_Protect_Against_Critical_Threats_508C.pdf
    - *More than a Password: Protect Yourself from Malicious Hackers with Multifactor Authentication*: https://www.cisa.gov/MFA
    - *Bad Practices*: https://www.cisa.gov/news-events/news/bad-practices-0
    - Free Cybersecurity Services and Tools: Cyber Hygiene Vulnerability Scanning: https://www.cisa.gov/resources-tools/services/free-cybersecurity-services-and-tools-cyber-hygiene-vulnerability-scanning
- FBI:
    - Internet Crime Complaint Center: https://www.ic3.gov/default.aspx
    - Local field offices: https://www.fbi.gov/contact-us/field-offices
    - InfraGard: https://www.infragard.org
- Secret Service:
    - Field offices: https://www.secretservice.gov/contact/field-offices
    - Electronic crimes task forces: https://www.secretservice.gov/investigation/cyber
- DOJ's Best Practices for Victim Response and Reporting of Cyber Incidents: https://www.justice.gov/sites/default/files/opa/speeches/attachments/2015/04/29/criminal_division_guidance_on_best_practices_for_victim_response_and_reporting_cyber_incidents.pdf
- NSA's Top Ten Cybersecurity Mitigation Strategies: https://www.nsa.gov/portals/75/documents/what-we-do/cybersecurity/professional-resources/csi-nsas-top10-cybersecurity-mitigation-strategies.pdf
- United States General Services Administration FedRAMP Program: https://www.fedramp.gov/training

Forum members engaged Steven in a discussion that focused on

- strategies for communicating to agency leadership the cybersecurity vulnerabilities in legacy systems and the costs associated with potential data breaches; and
- the pros and cons of ransomware insurance.

Forum Joint Session

Tuesday, August 8, 2023

Recognition of Completed Project

Georgia presented certificates to recognize the contributions of the members that developed the *Forum Guide to Understanding the School Courses for the Exchange of Data (SCED) Classification System* (https://nces.ed.gov/forum/pub_2023087.asp).

Joint Session: The Anatomy of a Hack

Georgia introduced the Privacy Technical Assistance Center (PTAC) Team. ED established PTAC within the Student Privacy Policy Office (SPPO) as a "one-stop" resource for answering questions and addressing concerns related to privacy, confidentiality, and security practices. The

presentation provided insight into how hackers target data in education agencies' systems and included a demonstration of how bad actors can exploit vulnerabilities within an agency. The presentation addressed the following points:

- Education agencies' key vulnerabilities include uncontrolled internet-facing applications and services, misconfiguration, bad passwords and permissions, and legacy software/hardware.
- The classical phases of cyber intrusion are reconnaissance, exploitation, establishing persistence, actions on objectives, and covering tracks. These phases are not always linear, and hackers look for the path of least resistance.
- Hackers can find vulnerabilities through simple searches on search engines and agencies' Internet of Things (IoT).
- A hacker can use a small foothold to access a large amount of student data.
- The consequences of a cybersecurity incident can be severe, sometimes even leading to school closures for days.

After providing an overview of education agencies' top risk factors and how to mitigate those risks, the PTAC Team walked through a demonstration of how a bad actor could hack a school district, using a fictional school district's website and parent portal for purposes of the exercise. They showed how hackers could use a search engine that lets users search for various types of servers, and use software to gain access to a fictional LEA's website, cameras, SIS, and remote desktop. In turn, the fake hackers in the demonstration were able to access the fictional personally identifiable information (PII) of students and parents and launch a ransomware attack on the fictional LEA. Throughout the demonstration, PTAC discussed best practices to help prevent such attacks.

The team also shared several CISA reports and notices about the increased cyber-threats faced by education agencies.

- *Report: Partnering to Safeguard K-12 Organizations from Cybersecurity Threats* (2023) (https://www.cisa.gov/resources-tools/resources/report-partnering-safeguard-k-12-organizations-cybersecurity-threats)
- *K-12 Education Leaders' Guide to Ransomware: Prevention, Response, and Recovery* (2021) (https://www.youtube.com/watch?v=h0J7qGSOVa4)
- *Cyber Actors Target K-12 Distance Learning Education to Cause Disruptions and Steal Data* (2020) (https://www.cisa.gov/news-events/cybersecurity-advisories/aa20-345a)

Forum members engaged the presenters in a discussion that addressed

- strategies such as multifactor authentication to prevent hash cracking, which uses brute force and caches to collect passwords;
- concerns about the future risks of quantum computing, which at present, remains cost-prohibitive for most bad actors' use;
- the usefulness of virtual private networks (VPNs), which are effective in securing boundaries around student information systems (SISs) or other systems;

- the pros and cons of using vendors to host agency systems: vendors sometimes have better cybersecurity protections in place and can utilize economies of scale, but when a vendor faces a data breach, many agencies may be affected; and
- PTAC resources and contact information.

PTAC is available to provide online or on-site technical assistance and presentations on privacy-related topics free of charge to requesting organizations, including

- Family Educational Rights and Privacy Act (FERPA) 101 and 201 Training;
- Data Security Best Practices Training;
- Data Security: Policy/Architecture Review;
- Data Sharing Agreement Assistance;
- Working with Online Service Providers and Apps;
- Data Destruction Best Practices; and
- Data Breach Response Training.

More information about requesting training and technical assistance is available at https://studentprivacy.ed.gov/request-ptac-training-or-technical-assistance.

Forum Closing Session

Wednesday, August 9, 2023

National Center for Education Statistics (NCES) Commissioner's Update

Georgia introduced NCES Commissioner Peggy Carr. Peggy first recognized the Forum's recent accomplishments and commended Forum members for their work, which culminated in publishing new resources on digital equity, education indicators, reporting civil rights data, and course codes. Peggy's presentation provided an overview of the latest information from NCES, organized into three topics: COVID impact, latest results, and the NCES strategic plan.

Condition of Education (CoE)

- The Condition of Education (https://nces.ed.gov/programs/coe/) findings fall into two main areas: 1) COVID-19 related; and 2) others not COVID related. The report contains indicators on education in the United States at all levels, from pre-kindergarten through postsecondary, as well as labor force outcomes and international comparison.
- Student enrollment data from the CoE Report that focused on COVID impact showed the following trends:
    - Early childhood enrollment rates saw some recovery in 2021; however, for both 3-4- and 5-year-olds, enrollment rates remained statistically significantly lower in 2021 compared to 2019.
    - Overall, public school enrollment fell 3 percent from 2019 to 2020 and stayed about the same in 2021.
- Non-COVID-19 related indicators showed that among public schools hiring for open teaching positions, higher percentages in 2020-21 than in 2011-12 reported having difficulties filling openings.

School Pulse Panel (SPP)

- NCES collects monthly data from public schools about a range of high-priority, education-related topics via the School Pulse Panel (https://nces.ed.gov/surveys/spp/).
- Key findings about public schools in the 2022-23 school year from the SPP December 2022 release include
    - 49 percent of public school students began the 2022-2023 school year behind grade level in at least one subject;
    - 59 percent of public schools used tailored accelerated learning strategies to promote learning recovery;
    - 37 percent of public schools offered high-dosage tutoring during the 2022-23 school year; and
    - 59 percent of public schools offered standard tutoring during the 2022-23 school year.
- Peggy announced that the SPP will continue throughout the 2023-24 school year. It will expand beyond its focus on COVID-19 to ask schools about a rotating list of high-priority, education-related topics.

National Assessment of Educational Progress (NAEP)

- The National Assessment of Educational Progress (https://nces.ed.gov/nationsreportcard/) recently released the long-term trend assessment results for age 13, as well as 2022 civics and U.S. history assessment results for the nation. The age 13 long-term trend results provide evidence that U.S. students are struggling academically amid achievement declines that worsened during the pandemic, particularly in math.
- Average scores for 13-year-olds declined 4 points in reading and 9 points in math compared to the long-term trend assessments administered in 2020.
- Similar declines continued in U.S. history for eighth-graders. Just 13 percent of eighth-grade students scored at or above the NAEP Proficient level (294) in U.S. history.
- Only 22 percent of eighth-graders scored at or above the NAEP Proficient (178) level in civics.

Principal Follow-Up Survey (PFS)

- The National Teacher and Principal Survey (NTPS) (https://nces.ed.gov/surveys/ntps/) is a system of related questionnaires that provide descriptive data on the context of public and private elementary and secondary education in addition to giving local, state, and national policymakers a variety of statistics on the condition of education in the United States. During the most recent NTPS data collection, NCES conducted a Principal Follow-Up Survey (https://nces.ed.gov/surveys/ntps/overview.asp?OverviewType=6).
- The PFS survey found that 11.2% of public school and 9.7% of private school principals left the profession between the 2020-21 and 2021-22 school years. The report also looked at how responses to job satisfaction questions related to attrition and turnover one school year later.

National Postsecondary Study Aid Study (NPSAS)

- The National Postsecondary Study Aid Study (https://nces.ed.gov/surveys/npsas/) is a nationally representative study that measures how students and their families pay for postsecondary education in a given academic year. It combines data from student surveys, institution student records, and data from various administrative sources.
- The NPSAS 2019-20 data collection showed that 72 percent of undergraduates received financial aid. Other key findings include
    - a higher percentage of undergraduates received financial aid from federal sources than from state or institution financial aid sources;
    - the percentage of undergraduates taking out student loans themselves decreased between 2015-16 and 2019-20; and
    - graduate students received grants and took out loans at similar rates.

NCES Strategic Plan

Peggy shared updates on the NCES strategic plan (https://nces.ed.gov/about/?sec=stratplan). She outlined the plan's four strategic goals, noting that the work of the Forum directly supports Goal 3: Foster and leverage mutually beneficial partnerships. Objectives for Goal 3 include

- continuing to develop and improve partnerships with states, school districts, leading education associations, and other stakeholders to increase support for participation in NCES studies and address their data needs;
- improving external communication and coordination to increase awareness and use of NCES data, products, and services—including collaborative data governance, linkages, and capacity building; and
- improving internal communications to strengthen collaboration and partnership within NCES and across IES and ED.

Forum members engaged Peggy in a discussion that addressed

- the impact of free college tuition programs on NPSAS data collection, and how other programs such as dual enrollment are handled in the survey;
- NCES welcomes feedback from Forum members on variables or data they would like to see in NPSAS data files; and
- the decline in traditional teacher training program enrollment and the growth of nontraditional teaching paths.

Recognition of Forum Officers

Peggy Carr, NCES Commissioner, presented certificates to recognize the contributions of the Forum officers and commended the Forum on its work.

Recognition of Completed Projects

Georgia presented certificates to recognize the contributions of the members that developed the *Forum Guide to State Education Agency Support for Local Education Agencies in Civil Rights Data Reporting* (https://nces.ed.gov/forum/pub_2023026.asp).

Standing Committee Progress Reports

Cheryl L. VanNoy, Saint Louis Public Schools (MO), reported on the National Education Statistics Agenda Committee (NESAC). Stephen Gervais, San Bernardino City Unified School District (CA), reported on the Policies, Programs, and Implementation (PPI) Committee. Chandra Haislet, Maryland State Department of Education, reported on the Technology (TECH) Committee.

Forum Election

Georgia presented the slate of proposed 2023-24 officers for a vote. The slate was seconded, and then the Forum voted to approve the following members as 2023-24 officers:

- Chair: Cheryl L. VanNoy, Saint Louis Public Schools (MO)
- Vice Chair: DeDe Conner, Kentucky Department of Education
- NESAC Chair: Adrian L. Peoples, Delaware Department of Education
- NESAC Vice Chair: Will Goodman, Boise School District (ID)
- PPI Chair: Jon Wiens, Oregon Department of Education
- PPI Vice Chair: Peggy Jones, Pasco County Schools (FL)
- TECH Chair: Andrew Swickheimer, Noblesville Schools (IN)
- TECH Vice Chair: Scott Gausland, Rhode Island Department of Elementary and Secondary Education

Closing Remarks

2023-24 Forum Chair Cheryl L. VanNoy, Saint Louis Public Schools (MO), thanked Georgia Hughes-Webb, West Virginia Department of Education, for her leadership of the Forum. Cheryl urged Forum members to remain engaged in the Forum throughout the year and reminded them to complete the meeting evaluation.