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SETDA
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Executive Summary

The Universal Connectivity Imperative

Sustaining Progress to Close the Digital Access Divide in K–12 Education

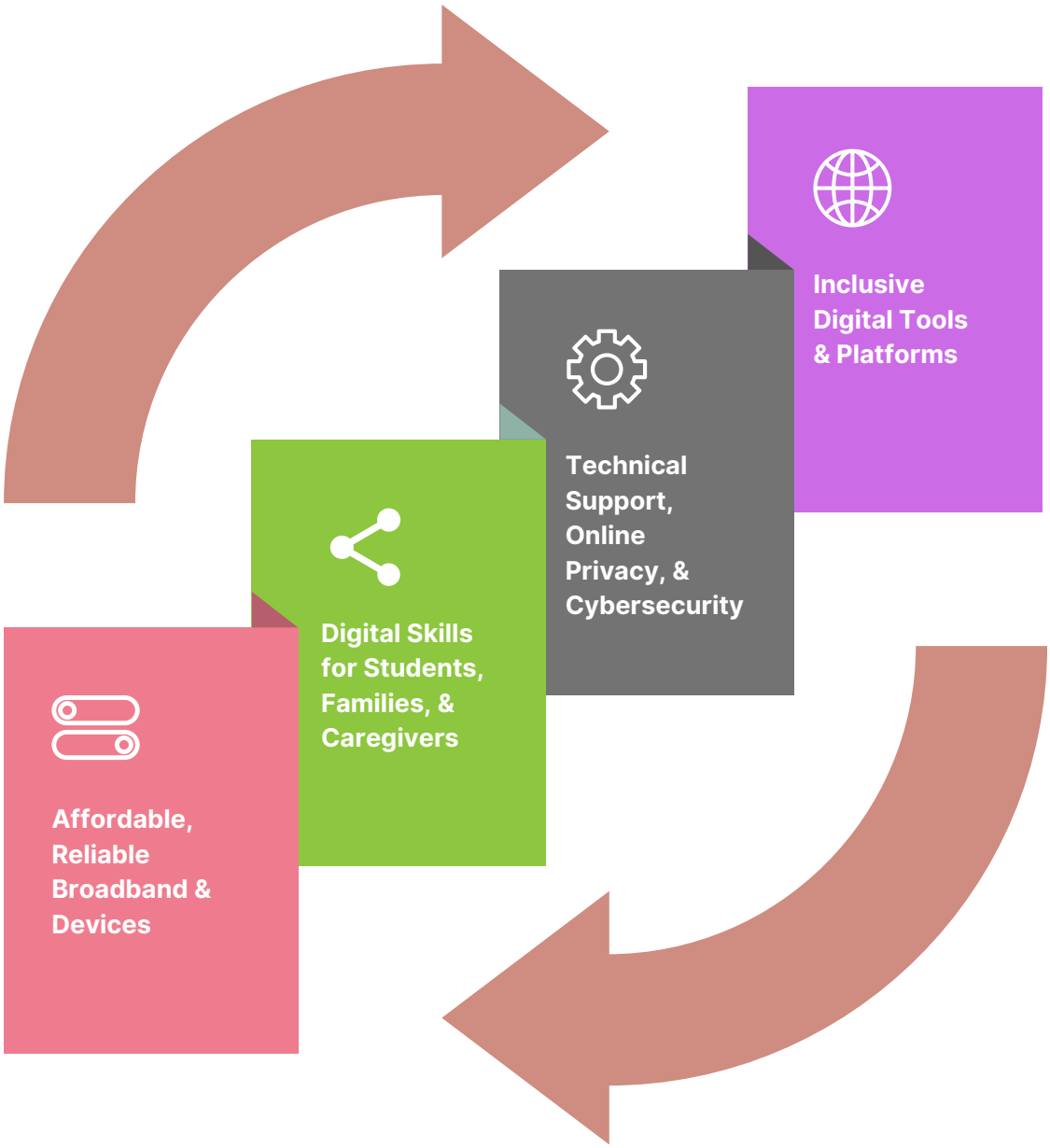
The Universal Connectivity Imperative (UCI) builds upon the research and insights of SETDA's previous reports, including "The Broadband Imperative III: Driving Connectivity, Access and Student Success" and "2024 State EdTech Trends." UCI provides a comprehensive analysis of the current K–12 digital access divide, as articulated in the U.S. Department of Education's 2024 National Educational Technology Plan; explores the progress made thus far; and identifies emerging challenges that demand our attention. Informed by input from federal, state, and local government leaders; researchers; nonprofit organizations; industry representatives; and K–12 students and teachers, the report presents a road map for policymakers and education leaders, offering evidence-based strategies and best practices to continue bridging the digital access divide and ensure all learners have equitable, universal access to internet connectivity.

Why K-12 Universal Connectivity?

Due to rapid changes in the digital landscape, the first decade of the new millennium paved the path for technology-enabled teaching and learning. In response, SETDA produced a series of reports, titled "The Broadband Imperative," that advocated for significant infrastructure improvements to and through schools at scale so that K–12 students could also reap the benefits of the global technological transformation. However, the COVID-19 pandemic entirely reshaped the national conversation in K–12 from one strictly focused on at-school connectivity to one that considers "universal connectivity," even outside of school grounds, as a required component of a modern education system. Federal data reveals that many American households, especially those with Black, Hispanic, or Indigenous students and those who reside in rural areas, are impacted by this digital access divide. Research continues to suggest that K–12 students are more likely to achieve greater success and well-being when they are connected off-campus.

Current State of K-12 Universal Connectivity

Substantial progress has been made since the 2019 “Broadband Imperative III” report. Investments through policies like the Broadband Equity, Access, and Deployment (BEAD) Program, the Emergency Connectivity Fund, the Affordable Connectivity Program, and the Elementary and Secondary School Emergency Relief Fund have expanded broadband infrastructure and device access. However, the temporary nature of these programs, paired with the necessity of addressing various other elements of digital inclusion, draws focus to many remaining gaps and the work ahead.



Future Policies for K-12 Universal Connectivity

UCI synthesizes the analysis of current challenges into actionable state and federal policies that can help remedy existing gaps. These recommendations, encompassing both “big P” policies like legislative action and “little P” policies like system-level guidance and technical assistance, are designed to support the following benchmarks for universal connectivity. To sustain the gains from the past several years, state and federal policymakers can commit to ensuring that:

- All K–12 students can access internet services that meet or exceed the FCC’s new broadband benchmark speed (100/20 Mbps), ensuring reliable connectivity regardless of location within their communities.
- All K–12 students have individual access to at least one internet-enabled device. For devices that school systems provide, a structured device life cycle ensures they are refreshed every three to five years, maintaining functionality and compatibility with current technologies.
- All K–12 students, through schools and other community institutions, have access to digital skill-building opportunities aligned to a community-developed portrait of a learner/graduate, which supports their growth as digital citizens who are resilient to emerging technologies. K–12 families and caregivers also receive access to these opportunities.
- All students can access digital tools and platforms that protect their own and their families’ personally identifiable information and receive consistent technical support for safe and secure web navigation.
- All students access digital tools and platforms that are responsive to their variability as learners, helping historically marginalized populations access an expanded array of educational and career opportunities.

State and federal policymakers must also keep in mind several overarching policy implementation considerations.

- State and federal policymakers must commit to continuous monitoring and evaluation of policy initiatives to ensure that investments are increasing equitable access across all K–12 demographics. In doing so, NTIA should consider designating K–12 students as a covered population under the Digital Equity Act, because K–12 has thus far received somewhat limited attention within state digital equity plans. This action would ensure that the implementation of these plans can specifically target learners from historically marginalized populations.

- Reliable funding is a significant barrier to sustaining system-level efforts that strive to increase universal connectivity. Funding can also support staffing needs to effectively implement new programs. Policymakers can consider several options to provide consistent resource streams, including preserving and reforming the Universal Service Fund, revisiting various legislative proposals, and considering new programs within the reauthorization of the Elementary and Secondary Education Act.
- As the role of emerging technologies continues to grow in educational settings, it will be inevitable that users will demand additional bandwidth in a matter of years, and geographic areas considered well-connected today may soon be inadequately served. Federal and state policymakers therefore will need to be mindful of local variables as they determine the types of technologies that various programs support as well as the definition of "adequate" broadband. Federal leaders are already demonstrating capacity for an adaptive mindset. NTIA recently released guidance on how a "mix" of technologies can help meet the BEAD program's goals, while the FCC set a 1 Gbps/500 Mbps long-term goal for broadband speeds.

Vision and Call to Action

As industries continue to rely on technological advances to modernize and web-based applications replace traditional physical resources, the impact of universal connectivity in K–12 reaches far beyond the classroom. As demonstrated in this report, universal connectivity equips students to grow as contributing members of society, civically engaged and informed citizens, and resilient leaders ready to meet emerging challenges as they enter the workforce. With sustained investment from federal and state policymakers, we can create a more robust, inclusive, and innovative economy that benefits all Americans.

Project Sponsors

Connected Nation's mission is to improve lives by providing innovative solutions that expand the access, adoption, and use of high-speed internet and its related technologies. We believe everyone should have the opportunity to use technology to improve their lives, families, and communities — no matter who they are, where they live, or how they begin. We work at the community, state, and federal levels and with both public and private partners to work toward the common and important goal of expanding access, adoption, and use of broadband to ALL people. Everyone belongs in a Connected Nation.

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