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Infrastructure Advisory Council
Meeting Minutes
January 26, 2024

Attendees

- Joe Campbell — Connecticut Technical High School System
- Doug Casey — Connecticut Commission for Educational Technology
- George Claffey — Central Connecticut State University
- Burt Cohen — Office of Consumer Counsel
- Tom Dillon — Independent
- Kerri Kearney — Manchester Public Schools
- Michael Mundrane — University of Connecticut (UCONN)
- Sam Nanayakkara — CT State Community College @ Tunxis

Strategic Plans

Following a welcome by Infrastructure Advisory Chair Tom Dillon, Doug Casey provided an overview of several strategic plans:

- National Educational Technology Plan: On January 22, the United States Education Department (USED) released a revised National Educational Technology Plan (tech.ed.gov/netp). The document includes best practices and recommendations in three areas: equity of access, equity of design, and equity of use. This framing of digital learning best practices addresses the essential conditions of connections and computers (equity of access) that enables educators and administrators to create lessons, units, and assessments that fully leverage technology for learning (equity of design). Student engagement with technology in meaningful ways can help to personalize and deepen learning at scale, leading to equity of use. The new plan provides recommendations to state leadership organizations and local districts. Page 76 of the plan highlights Connecticut's work in linking digital equity to learning.

  Michael Mundrane pointed to the value of having a common framing of educational technology across states. In response to a question from Burt Cohen, Doug stated that the national plan does not come with any implementation funding. The USED does provide support to schools to support through Title IV-A funding (safesupportivelearning.ed.gov).

- Connecticut Digital Equity Plan: The Commission has led the federal Digital Equity Program on behalf of the state and released a draft digital equity plan, "Connecticut: Everyone Connected," on December 20. The plan reflects a year

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of research, with input from more than 7,000 residents through surveys and focus groups regarding the barriers they face to affording, accessing, and using technology. Doug shared that nearly 500 people have submitted feedback on the draft plan, which addresses gaps in broadband, device, training, and support across Connecticut. The Commission will submit the plan for final approval in February.

- Connecticut State Education Technology Goals and Plan: Doug thanked the Advisory Council members for their engagement in developing the state ed tech plan, which the full Commission approved at its December 4, 2023 meeting. The plan includes initiatives across five areas: technology-enabled learning, digital equity, competencies, sustainability, and data privacy and security. Commission members have identified funding sustainability as a top priority, and so the advisory council members began a discussion around this topic.

Sustainability of Technology Investments

Advisory members engaged in a thorough discussion around the sustainability of technology investments, addressing the factors that precipitated the "funding cliff" that many districts face, the types of technology expenditures, and recommendations for the Commission.

As background, Joe Campbell noted the unprecedented investments made during the pandemic to support student learning. Multiple waves of federal funding allowed districts to expand dramatically their levels of investment. The Connecticut Technical High School System, for example, more than doubled its software spend over the past three years. As Michael pointed out, these were one-time, ad hoc, emergency investments that many have misperceived as sustainable.

Doug shared data from two surveys, comparing levels of student computers and software, as reported by approximately a quarter of the state's school districts (see figures at right and below; sources: district responses to 2019 and 2023 surveys by the Commission and de-identified student data via LearnPlatform, https://ctedtech.app.learnplatform.com).

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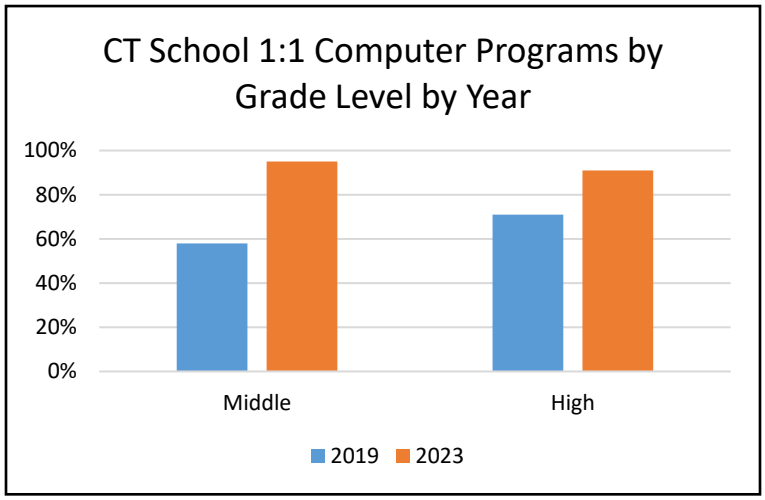

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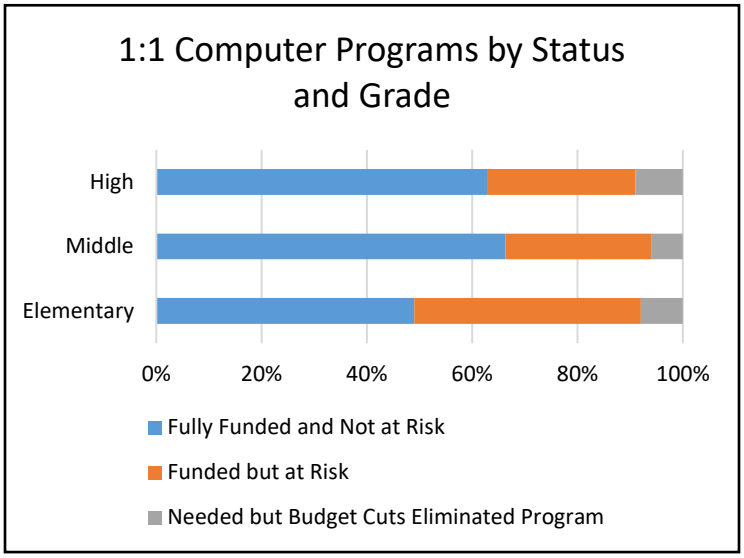
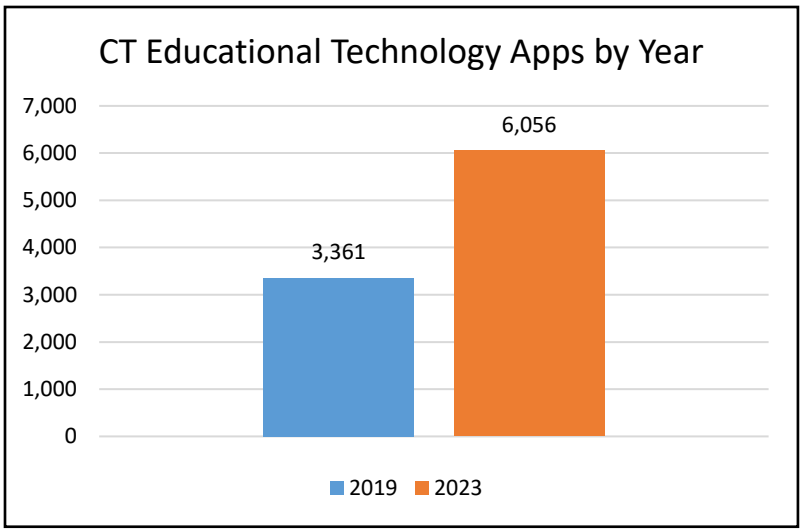


Advisory members representing the higher education community — Michael, George Claffey, and Sam Nanayakkara — indicated that colleges and universities did expand the use of and investments in technology to support remote and hybrid learning during the pandemic, but that many expenditures have decreased with a shift back to in-person instruction. Colleges and universities may provide assistance to students in need of computers, but institutions generally retain a "bring your own device" policy. This contrasts with the cost of running schools, including 1:1 computer programs that provide a device to each learner.



Shifting to the nature of technology investments, members addressed the expansive nature of digital tools and resources. Kerri Kearney highlighted infrastructure as a key concern. Running a safe, high-speed network; enterprise software such as a student information system; and software for operational and instructional needs requires dedicated funding to address operational and capital replacement costs. She noted that staffing levels have generally not expanded to meet the growing footprint of technology.

Michael reinforced this point, describing the carrying costs of technology in educational settings. Sam echoed these points, describing the total cost of ownership across software, hardware, licensing, and staff support. Given the distributed nature of technology acquisition (i.e., individual teachers adopting apps for use in the classroom), the perceived local costs of technology do not account for the broader, global support and maintenance expense.

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Tom guided the discussion to explore ways the Commission could help in the area of technology sustainability. Doug suggested the development of a white paper or other publication that describes the current levels and types of technology investment in schools especially. The group welcomed this approach as a way of educating decision-makers and community members. Across capital and operational expenses, two possible levels of technology spending emerged:

- Category: networking, including core circuits, switches, and firewalls; computing devices; other hardware types such as security cameras; operational software, including enterprise resource planning and student information systems; and instructional software
- Nature: Across these categories, indirect or less-visible expenses, most importantly staff support as well as licensing and support agreements

The group welcomed this approach rather than a more detailed description. As Kerri noted, schools vary in how they apportion funding (through the town, at the district level, or by building). Even tracking what constitutes a "technology" investment may vary. For example, instructional software may have been tagged as "technology" in the past and now falls under "instructional materials," but not consistently across districts. George and others proposed a per-pupil technology cost, or at least articulating the physical and digital resources necessary to support each learner. Districts already provide this level of detail in their annual reporting.

To offset these costs, the group encouraged a list of federal and local resources, from E-rate for networking to private partnerships through companies such as T-Mobile that offer free hotspots to qualifying families. Reinforcing the value already delivered through the bundled services of Connecticut Education Network (CEN) such as cybersecurity protections also made sense to include. National leadership organizations such as the Consortium of School Network (CoSN) also have excellent guidance for school leaders. The audience for such guidance would include superintendents, school business officers, members of boards of education, and of course school technology leaders.

Tom suggested that he and Doug meet to flesh out specific next steps. He thanked the Advisory Council members for their contributions and adjourned the group at 2:30 PM.