

Date of Hearing: April 12, 2023

ASSEMBLY COMMITTEE ON EDUCATION
Al Muratsuchi, Chair
AB 1496 (Papan) – As Amended March 9, 2023

SUBJECT: Educational technology: Digital Education Equity Pilot Program: county offices of education

SUMMARY: Establishes the Digital Education Equity Pilot Program (DEEPP), administered by the California Department of Education (CDE), to establish model programs and strategies for providing cost-effective technical assistance (TA) and teacher professional development (PD) to local educational agencies (LEAs) on the implementation of educational technology as set forth in policies of the State Board of Education (SBE). Requires the CDE to administer and fund the establishment of four pilot COEs (Napa, San Mateo, Santa Cruz, and Riverside), to develop and establish effective PD and TA that may be adopted or adapted by other COEs, to more effectively address locally determined educational needs with the use of technology.

Specifically, **this bill:**

- 1) Establishes the DEEPP, administered by the CDE and contingent upon appropriation in the Budget Act or another statute.
- 2) Defines the following terms:
 - a) “Educational technology” to mean technology-based materials, equipment, systems, and networks used for education; and
 - b) “Local educational agency” to mean a COE, school district, or charter school.
- 3) Requires the DEEPP to establish model programs and strategies for providing cost-effective TA and teacher PD to LEAs on the implementation of educational technology as set forth in policies of the SBE.
- 4) Requires, in administering the DEEPP, the CDE to administer and fund the establishment of four pilot COEs, as provided, to develop and establish effective PD and TA that may be adopted or adapted by each of the remaining 54 COEs, to more effectively address locally determined educational needs with the use of technology.
- 5) Requires the DEEPP to provide the guidelines and funding to the 58 COEs to more effectively address educational needs with technology, including, but not limited to:
 - a) PD for teachers, school administrators, certificated and classified staff;
 - b) Promoting strategies and best practices for increasing the use of technology in classroom instruction;
 - c) Digital resource selection and use for pupil instruction;
 - d) Digital network infrastructure and recommended bandwidth for LEAs and homes;

- e) TA to LEAs in developing a support system to operate and education technology infrastructure, including improving pupil recordkeeping related to pupil instruction;
 - f) Planning, coordination with, and support for local funding and implementation of federal, state, and local programs;
 - g) Gaining access and using a variety of funding sources for instructional technology;
 - h) TA and information to support access, planning, and the use of high-speed telecommunications networks;
 - i) Technology planning and implementation assistance to rural and technologically underserved LEAs and technologically underserved pupil groups;
 - j) Assistance in the use of online instruction to replace or supplement in-class instruction and to establish online and hybrid learning proficiency for teachers as requested by LEAs served by a COE; and
 - k) Helping to ensure that instructional technology is aligned to the state's academic content standards and incorporates related pupil learning assessment.
- 6) Requires, on or before June 30, 2024, the CDE, in consultation with the executive director of the SBE, to authorize grants to the Napa, San Mateo, Santa Cruz, and Riverside COEs to serve as the pilots for the DEEPP. Requires the grantees to develop, implement, and demonstrate effective professional development strategies and support services for school districts and charter schools they serve within their jurisdictions. Authorizes grant funding to be awarded and received for subsequent three-year terms.
- 7) Authorizes the strategies and practices developed by these four pilot COEs to be disseminated and adopted by the remaining 54 COEs, as needed.
- 8) Requires each of the four pilot COEs to be awarded grant funding to the extent to which they each provide a plan that clearly documents or describes how it plans to address all of the following:
- a) Knowledge of technology to improve teaching and learning;
 - b) Technology planning and TA;
 - c) Proven success in providing PD in technology and curriculum integration;
 - d) An ability to work collaboratively with LEAs and businesses in the region;
 - e) The ability to deliver specified services to all LEAs in the county served by the COE;
 - f) The support of LEAs for the COE application in the region;
 - g) Specific strategies for documenting and addressing the needs of LEAs and technologically underserved pupil groups;

- h) A plan for evaluating the implementation of, access to, use of, and local impact of, the services provided by the COE;
 - i) The capacity to assist in the use of online instruction when necessary.
 - j) A commitment to help ensure that instruction using technology is aligned to the state's academic content standards and incorporates related pupil learning assessments; and
 - k) A strategy and staff level necessary to assist additional COEs to adopt or adapt the effective PD and technical support strategies established by one or more of the four pilot COEs.
- 9) Requires each of the four pilot COEs to develop or test established strategies for the delivery of PD and technical support to be made available for other COEs to adopt or adapt according to local needs.
- 10) Requires, to receive funding for the second and subsequent years of a grant, the four pilot COEs to each submit an annual report to the CDE for approval that describes the services provided, the LEAs served within its jurisdiction, and the funds expended for those services, demonstrates successful strategies for PD and equitable uses of educational technology, and describes the observed and anticipated impact on instructional practice supported by technology.
- 11) Requires the CDE to establish an Office of Educational Technology and Digital Equity with sufficient staff to administer the DEEPP, as well as other duties. Requires the duties of the CDE to include, but not be limited to, all of the following:
- a) Providing for the statewide coordination, planning, and evaluation of technology programs and resources to include the planning and services provided by the four pilot COEs;
 - b) Providing sufficient staff to provide ongoing support, direction, and coordination of the regional and statewide educational technology services;
 - c) Advancing the use of technology in the curriculum and in the administration of elementary and secondary schools;
 - d) Providing ongoing planning, funding, and policy information to all other COEs as needed, for planning and distribution to LEAs served by those COEs; and
 - e) Coordinating educational technology planning, policies, and information with other divisions of the CDE to include, but not be limited to, curriculum, assessment, technical support, budgeting, and PD.
- 12) Authorizes the Superintendent of Public Instruction (SPI) to provide centralized statewide educational technology services that address locally defined needs and are more efficiently and effectively provided on a statewide basis. Authorizes the CDE to contract with a COE to

provide specific educational technology services that may include, but are not limited to, any or all of the following:

- a) Review of electronic learning resources, including, but not limited to, software, online resources, and video, for alignment with the content standards adopted by the SBE and for the results of reviews to be accessible online, as needed by all public educators in the state;
 - b) PD focused on digital school leadership for educational administrators in the areas of data-driven analytics, equity, and accessibility, integrating technology into standards-based curriculum, technology planning, professional development needs of staff, digital citizenship and privacy aligned to the Model School Library Standards, and financial planning for technology; and
 - c) Access for schools to training, support, and other resources for technical professionals in the state.
- 13) Requires the SPI to annually submit a written report to the SBE and the Legislature on the services provided, persons served, and funds expended for the DEEPP. Requires the report to be submitted to the Legislature.

EXISTING LAW:

- 1) Establishes the K-12 High-Speed Network (K-12 HSN), which provides high-speed, high-bandwidth internet connectivity to the public school system for the purposes of enriching pupil experiences and improving pupil academic performance. (Education Code (EC) 11800)
- 2) Authorizes the SPI to award educational technology competitive grants based on a school district's regular average daily attendance (ADA). (EC 33132)
- 3) Required the stated one-time funds in the education omnibus measure, AB 104 (Committee on Budget), Chapter 13, Statutes of 2015, for school districts to prioritize, among other things, PD, instructional materials, and technology infrastructure. (EC 41207.41)
- 4) Appropriated funds from the General Fund and the Federal Trust Fund to the SPI for COVID-19 relief and includes LEAs that provide distance learning in the 2020-21 school year. (EC 43521)
- 5) Requires LEAs offering in-person instruction for the 2020-21 school year to include all prioritized pupil groups. Prioritized pupil groups include all of the following:
 - a) Pupils at risk for abuse, neglect, or exploitation;
 - b) Homeless pupils;
 - c) Foster youth;
 - d) English learners; and

- e) Pupils without access to a computing device, software, and high-speed internet necessary to participate in online instruction, as determined by the LEA. (EC 43521)

FISCAL EFFECT: Unknown

COMMENTS:

Provisions of the bill. This bill 1) establishes an educational technology program, the DEEPP, within the CDE, 2) requires the CDE to issue three-year grants to four pilot COEs (Napa, San Mateo, Santa Cruz, and Riverside), to develop and establish effective PD and TA that may be adopted or adapted by other COEs, and 3) establishes the Office of Educational Technology and Digital Equity at the CDE, to administer the DEEPP and provide for centralized statewide educational technology services.

Need for the bill. According to the author, “Over the past 25 years, technology has become ubiquitous with nearly every aspect of society. As a result, our world is now changing faster than ever. The widespread adoption of technology has certainly increased opportunity, but it has also created a new set of challenges that we must learn to deal with. For instance, the recent COVID-19 pandemic demonstrated the full extent of the digital divide in California. Unfortunately, disparity among students can be traced back to the lack of resources provided from their school district. Many districts need more resources to effectively select, access, and implement technology in classrooms. At the same time, many educators still lack access to the quality information and professional development they need in order to provide their students with the current and emerging technology, devices, applications, and Internet resources that they need to succeed. Without universal access to technology and digital support for teachers and staff, students cannot receive equitable access to a quality education.”

Digital divide and COVID-19. During the COVID-19 pandemic, which began in March 2020, public schools were charged with providing high-quality instruction through distance learning and independent study, paying employees, and providing meals to students. Distance learning gave the opportunity for teachers to provide students instruction in different locations from each other to adhere to social distancing health requirements to prevent spread of the COVID-19 virus.

The pandemic upended educational instruction as most LEAs in California opted to shut down, continue instruction through distance learning, and scrambled to provide laptops and connectivity services to all of its students. While many households in California already had internet connectivity prior to the onset of the pandemic, disadvantaged student populations such as low income, Black, and Latino households were less likely to have reliable access to the internet and a digital device. According to a 2022 Public Policy Institute of California (PPIC) report *The Digital Divide in Education*, the trend continues. Although Black and Latino households increased in access to a digital device, access to reliable internet connection remained stagnant from 2020 to present day. Increases in reliable access to internet service moved at a slower rate, from 71% to 75%, which reflects the challenges for households in remote areas where internet infrastructure and low-income households in crowded urban areas that could not afford reliable internet connection. The PPIC also noted that households with school children who had full digital access, which includes both a computing device and an internet connection for educational purposes, increased from 60% in spring of 2020, but stalled at 71% in spring of 2021. Although schools resumed in-person instruction in the 2021-22 school year, the COVID-

19 pandemic emphasized our reliance and need for technology as distance learning continued for some students in the form of independent study.

Technology in classrooms. Whether being used to supplement teaching a course, e-mail communications, or assigning homework, the need for technological connectivity intensified during the pandemic, and is inevitably essential moving forward. According to a 2019 Learning Policy Institute article, the ways in which technology is utilized in the classroom can positively affect academic outcomes such as “advancing learning for high school students that are at the greatest risk of failing a class or dropping out of school when it’s interactive rather than one-way, used to support discussions and projects with peers and teachers, and serves as a tool for creation rather than passive consumption. When technologies try to replace teachers, research consistently finds little benefit.”

The CDE and technology management. The CDE maintains the Information and Technology Branch within the CDE. It primarily serves as an internal department that manages the information technologies for CDE employees and handles the educational data relating to assessments and accountability of schools and students. The Branch is not equipped to support the technical support needs of individual LEAs.

Previously, the state supported a robust Educational Technology program, which included the California Technology Assistance Project (CTAP) and Statewide Education Technology Services (SETS). The CTAP provided a regional network of technical assistance, coordination, and services to schools and school districts in education technology throughout in 11 regions throughout the State. The SETS provided was a centralized program that addressed locally defined needs through 4 projects including an online resource list aligned with state content standards, online resource providing training and support for school information technology staff, resources to support school administrators for school management and data-driven decision making, and access to online assessments and student proficiency assessment data. In 2012, the CTAP and SETS were subsumed into the Local Control Funding Formula. This bill seeks to reestablish similar functions and goals of the CTAP and SETS programs, albeit through a pilot in four COEs.

County offices of education. According to data from the CDE, California enrolled 5,892,240 students in the 2021-22 school year. There are 10,545 public schools, 1,293 charter schools, and 1,029 school districts in the state. For each of the 58 counties in California, there is a COE that serves multiple schools and districts within the region. Each COE is administered by a superintendent and is governed by an elected board. COEs provide a variety services for school districts that might otherwise be difficult or expensive to do on their own such as operating concurrent enrollment at community colleges, developing professional development for staff, or developing parent education programs. Some COEs manage statewide projects such as Kern County, which manages the Fiscal Crisis and Management Assistance Team (FCMAT), who work to help LEAs identify, prevent, and resolve fiscal, operational, and management challenges. Generally, COEs provide direct services to students, which can include special education programs, court schools for juvenile offenders, and Career Technical Education programs. By law, COEs have oversight over the districts and charter schools that they serve, which include approving each district’s annual budget, monitoring the quality of school facilities and teachers, and approving of each district’s Local Control Accountability Plan.

Increasing frequency of cyberattacks on LEAs. According to a 2021 article by CalMatters, *Under Attack: California Schools Face Ransomware Threat*, more than two dozen California school systems have been targets of cyberattacks. Since 2016, Seculore Solutions, a software company, has recorded over 122 cyberattacks in California across the public safety, government, medical, and education sectors with at least 26 cyberattacks targeting school districts and universities. In the 2021 CalMatters article, a UC Berkeley cybersecurity researcher stated, “If the data on cyberattacks seems sketchy and incomplete, that’s because it is.” With many schools adopting distance learning in the 2019-20 and 2020-21 school years, technological vulnerabilities increase yet little information is collected regarding the nature of the attacks, and the resulting impact on agencies.

A variety of LEAs, from a rural northern California COE to the Los Angeles Unified School District, have experienced significant cyberattacks in the last several years. Each attack is different, but may cause disruptions in e-mail access, financial software, and internet capabilities. Without internet access, LEA operations come to a halt, and may disrupt activities such as administering standardized testing during a critical time of assessing students’ academic progress. The security of confidential student and personnel records may also be threatened.

According to the Federal Bureau of Investigations (FBI), ransomware is a type of malicious software, or malware, which prevents a user from accessing computer files, systems or networks and demands the user pay a ransom for their return. Once a user unknowingly downloads the ransomware onto a computer by, for example, opening an e-mail attachment, the malware is then loaded into the user’s computer and locks access to data and files stored in the system. In some cases, the FBI works with the impacted LEA and their cybersecurity team to aid in the situation.

California Department of Education’s cybersecurity response. The CDE collects and protects student data. To protect and maintain sensitive information and awareness throughout the year, the Educational Data Governance Program hosts presentations by cybersecurity and privacy experts from federal partner agencies such as the FBI and the U.S. Department of Education. Additionally, CDE staff work with and learn from privacy professionals and share privacy resources with schools and districts at conferences and symposia. Schools are currently not required to report cyberattacks to the CDE.

Recommended Committee Amendments. *Staff recommends the bill be amended* as follows:

- Require the CDE to have a competitive process for selecting the four pilot COEs.
- Require, rather than authorize, the strategies and practices developed by the four pilot COEs to be disseminated to other COEs.

Arguments in support. The San Mateo County Office of Education writes, “AB 1496 would provide funding to support four County Office of Educations to pilot a program administer professional development and technical assistance to school districts to effectively plan and use technology to support instruction and learning in schools and homes. It would also provide funding to enhance the Instructional Technology Services Department at the California Department of Education, which would help administer this program. The cost-effectiveness and impact of DEEPP will be documented and used to inform future program improvements. Students are now back in the classroom. Schools still have access to the technology purchased during the COVID-19 pandemic. Whether technology is being used to deliver instruction

remotely, as was necessary during the height of the pandemic, or used to augment instruction in the classroom, it is clear that the schools that are most effective using technology in instruction are those that not only have the appropriate numbers of devices and adequate bandwidth, but also sufficient resources to train and support teachers in the use of the technology integration into the curriculum. The effective use of classroom technology today is more important than ever, given the amount of learning loss experienced by some students during the height of the pandemic. Learning loss has disproportionately affected students of color. Effective use of digital learning tools can help bridge that gap. There have been a number of funding sources developed at the state and federal levels to increase the number of devices and internet access where needed. But only AB 1496 addresses the need for ongoing professional development to help teachers, administrators and other staff in effectively integrating the online tools into the curriculum.”

Related legislation. SB 876 (Becker) of the 2021-22 Session would have established the Digital Education Equity Program (DEEP), administered by the CDE, in unison with the 58 COEs, to provide TA and teacher PD to LEAs on the implementation of educational technology as set forth in policies with the SBE, upon appropriation of the Budget Act or another statute. This bill was held in the Assembly Appropriations Committee.

SB 767 (Becker) of the 2021-22 Session would have made various significant changes to educational technology in schools, including the creation of a new education technology grant program; a requirement that state agencies develop criteria for school technology plans and local educational agencies adopt technology plans; and would establish a new office at the CDE to administer the grant program, prepare a state technology plan, provide centralized statewide educational technology services and perform other duties. This bill was held in the Assembly Appropriations Committee.

AB 1176 (E. Garcia) of the 2021-22 Session would have established the California Connect Fund in the State Treasury. The bill, until January 1, 2031, would require the California Public Utilities Commission (CPUC) to develop, implement, and administer the California Connect Program to ensure that high-speed broadband service is available to every household in the state at affordable rates. This bill was held in the Assembly Appropriations Committee.

AB 1560 (Daly) of the 2021-22 Session would have required the SPI to collect information about pupils’ access to computing devices and residential broadband service, and would authorize the Department of Technology to enter into a sponsored service agreement on behalf of a LEA with a broadband service provider for providing free or reduced-cost residential broadband service to eligible pupils. This bill was vetoed by the Governor, with the following message:

Closing the digital divide is crucial to promoting equity in our schools, which is why I worked with the Legislature to secure \$6 billion to expand broadband infrastructure and enhance internet access for unserved and underserved communities. Further, SB 98 (Chapter 24, Statutes of 2020) appropriated \$5.3 billion for LEAs to support pupil academic achievement and mitigate learning loss related to the COVID-19 pandemic, funding which they can use for purposes including the purchase of computing devices. Therefore, the provisions of this bill are duplicative and unnecessary.

SB 732 (Bates) of the 2021-22 Session would have required the CDE to develop and implement a program for COEs, school districts, and charter schools to issue no-cash value vouchers to be distributed to households with eligible pupils, to be used during the 2021–22 fiscal year to assist

those households with the impacts of distance or remote learning due to the COVID-19 pandemic. The bill would have established the Rural Broadband Infrastructure Fund as a continuously appropriated fund in the State Treasury in order to provide high-quality broadband service to rural areas that are unserved. This bill was held by the Senate Energy, Utilities, and Communications Committee.

AB 82 (Committee on Budget) Chapter 14, Statutes of 2020, in pertinent part, allowed the California Public Utilities Commission to provide matching funds through the California Advanced Services Fund (CASF) to broadband providers as they pursue funding through the federal Rural Digital Opportunity Fund.

AB 570 (Aguiar-Curry) of the 2019-20 Session would have made numerous changes to CASF, to encourage deployment of broadband technology to all areas of the state. This bill was held on the Senate Floor.

SB 1130 (L. Gonzalez) of the 2019-20 Session would have made numerous changes to CASF, to encourage deployment of broadband technology to all areas of the state. This bill was held on the Assembly Floor.

ACR 268 (Thurmond) Resolution Chapter 221, Statutes of 2018, resolved that the Legislature considers education technology of the highest priority and that the Legislature convene a state level summit conference to address improvements in education technology and related topics.

AB 1665 (E. Garcia), Chapter 851, Statutes of 2017, revised the goal of the CASF to approve funding by December 31, 2022, for infrastructure projects that will provide broadband access to no less than 98% of California households in each consortia region, as identified by the PUC, among other provisions.

AB 1761 (Sweeney), Chapter 801, Statutes of 1997, required the CDE to establish the CTAP of regional consortia to administer a regionalized network of support to schools and school districts. Required the SBE to issue grants to LEAs to serve as lead agencies in each region.

REGISTERED SUPPORT / OPPOSITION:

Support

Napa County Office of Education
Office of The Riverside County Superintendent of Schools
San Mateo County Office of Education

Opposition

None on file

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