KENTUCKY DEPARTMENT OF EDUCATION STAFF NOTE

Topic: Kentucky Education Technology System (KETS) Operational Plan for School Year 2023-2024
Date: August 2023
Action Requested: ☐Review ☒Action/Consent ☐Action/Discussion
Held In: ☒Full Board ☐Curriculum, Instruction and Assessment ☐Operations

SUMMARY OF ISSUE BEFORE THE BOARD:

To approve the use of Kentucky Education Technology System (KETS) funds in the amount of $15.4M for the 2023-2024 school year.

The KBE has already approved $366M in annual KY K-12 education technology needs as part of the SY 2018-2024 Kentucky Education Technology System (KETS) Master Plan. Since 1992, the KBE has been requested and required to annually approve the use of KETS funds (i.e., $15.4M for SY 2023-2024) as one of the annual funding sources to help address the annual KY K-12 education technology needs. There is another $476.2M in annual funding sources beyond the $15.4M KETS funds that also help address that $366M in annual need that are provided as an attachment to this staff note for informational purposes only and this $476.2M does not need or require KBE approval. Since 1992, the KBE has been requested and required to annually approve the use of KETS funds (i.e., $15.4M for SY 2023-2024) as one of the annual funding sources to help address the annual KY K-12 education technology needs.

COMMISSIONER'S RECOMMENDATION:

The Commissioner recommends that the board approve the SY 2023-2024 KETS operational management resources of $15.4M in accordance with KRS 157.665(3) to help address the KY K-12 education technology operational management needs.

APPLICABLE STATUTE OR REGULATION:

KRS 156.670, KRS 157.655, KRS 157.660, KRS 157.665, 701 KAR 5:110

BACKGROUND:

Existing Policy:

There has been a very large influx of recent, one-time federal CV-19 relief funds that will go towards education technology needs in the K-12 environment through the next school year. These additional one-time federal CV-19 funds have led to the largest amount of education technology funds available to address education technology needs in districts in the 30-year history of the Kentucky Education Technology System (KETS) funds. These additional one-time funds over the next year will help address previous and sustained funding shortfalls as well as implementing new needed technology enabled services. All of that is wonderful news, in the short term. However, these federal CV-19 relief funds are very temporary in nature and, therefore, planning must occur now on how to maintain and sustain these education technology enabled products and services after the federal CV-19 relief funding has been expended and/or expires at the beginning of SY 2024-2025.

This is the last eight (8) years of grand totals of all the funding sources available to KDE, districts and schools, identified to obtain KY K-12 EdTech products and services, prior to the CV-19 pandemic in March 2020 and since March 2020. Prior to all the temporary CV-19 federal relief funds, KY K-12 EdTech had been regularly underfunded between $100M-$140M per year. KY K-12 districts will return to that significant underfunding of $100M-$140M of EdTech in SY 2024-2025 and thus will quickly experience the negative impacts of that underfunding, unless something is done in the OET and KETS budget to address that large funding shortfall prior to SY 2024-2025.

• SY23-24 - $491.6M
• SY22-23 - $502.7M (includes $27.7M of last round of temporary federal Emergency Connectivity Funds (ECF))
• SY21-22 - $405.4M (includes $48.7M in first rounds of temporary federal Emergency Connectivity Funds (ECF))
• SY20-21 - $330.7M
• SY19-20 - $288.3M (includes $20.8M jump of student & staff computer purchases from March 2020 to June 2020)
• SY18-19 - $265.6M
• SY17-18 - $228.7M
• SY16-17 - $215.5M

Since 2010, the Kentucky Education Technology System (KETS) allocation, approved by the legislature through their budget language, has been steadily reduced from $19.5M to $15.4M. Although KETS was identified as one of KBE's top additional budget priorities in the 2020-2022 KDE Biennial Budget Request and submitted to the Governor for consideration during the 2020 Legislative Session, additional funding was not included by the General Assembly in the enacted 2020-2021 nor the 2021-2022 Executive Branch Budgets mainly due to the Covid situation. In the 2022 legislative session, the additional budget request for KETS was not identified as a top five priority by the KBE and was not funded in the 2022 session.

We are happy for CTE, transportation, kindergarten and KSB/KSD receiving significant new legislative funding after being a top five priority of the KBE in the 2021 and 2022 legislative sessions. Going forward, we strongly advocate for KETS to be one of the KBE's top five funding priorities identified in the upcoming 2024-2026 KDE Biennial Request. Without addressing this funding shortfall, it is effectively acknowledging that the KETS program will not be provisioned with the resources necessary to sustain reliable, capable and quality education technology services for all Kentucky K-12 beginning in SY 2024-2025.

The following must occur to appropriately fund education technology beginning in school year 2024-2025:

1. Increase the KETS annual allocation to $30M per year to (a) counteract the effects of inflation to KETS since 1992, (b) to restore the significant cuts (i.e., $5M+) of over the past 11 years to the basic KY K-12 edtech funding and (c) to address the rapid annual increase/replacement in the numbers (e.g., districts going to 1 to 1 computers), types of tech devices (e.g., HVAC using the Internet, phones over the Internet, school safety devices that use the Internet) and services (e.g., KY K-12 Internet bandwidth service) being used by over 750,000 KY K-12 students & adults for instructional, communication, physical safety, cybersafety and cybersecurity purposes. This also includes $1.5M to KETS to pay for KDE's portion of the KY K-12 School Information System (KSIS) used by all 171 KY K-12 school districts. When the legislature provided the funding to implement KSIS in 2006 they unfortunately did not provide the funding

for the annual costs and we have been limping along since then using e-rate rebates to pay for that $1.5M that your never sure you'll get it or when you'll get it. It's like counting on your income tax returns each year to pay for your mortgage payment or monthly rent. So rather than KDE having use $1.5M from the e-rate rebates to pay for that annual KSIS costs, OET can instead send that $1.5M in e-rate rebates to districts and have a stable funding source in KETS to pay for that annual KSIS cost. It is very unrealistic to maintain basic high-quality technology enabled services for schools and districts without raising the KETS baseline to at least $30M per year.

2. Restore full funding of $800,000 for the Computer Science/Information Technology (CS/IT) Academy for school districts beginning in SY 2023-2024. The Computer Science/Information Technology (CS/IT) Academy is a joint venture of OET & CTE with the aim of supporting rigorous computer science teacher professional learning in addition to teacher and student course support in the demonstration of Computer Science standards and industry certification exam vouchers in ALL computer science courses and pathways. The Kentucky K-12 Computer Science and IT Academy program prepares educators and students for industry-recognized certifications. By creating more opportunities for computer science learning for Kentucky students, we will reach, keep and engage more students in learning, create a pool of more qualified people to fill existing job openings and stimulate suppressed economic regions of our state by developing a high-tech skilled workforce. Computer science and coding utilize critical thinking and problem-solving talents that benefit all career paths.

3. Help properly address the people side of edtech in districts so there are the right number of technicians, digital learning coaches and other basic edtech leadership responsibilities in districts (data accuracy, cybersecurity/cybersafety/cyberprivacy, strategic planning, emerging technology) that help ensure school technology is kept reliable for students and teachers, is maximized in instruction, is cybersecure/cybersafe and is of high quality (e.g., data). Over the past 5 years there is an alarming trend of the invested EdTech services and devices are dramatically out-pacing that of district EdTech staff such as Digital Learning Coaches (TIS/TRT), Technicians, Education Technology Leadership, Cybersafety/Cybersecurity and Data Quality Personnel. These EdTech staffing positions: (a) keep EdTech systems/services running reliably, safe and secure, (b) build district capacity by showing teachers how to maximize the use of the digital tools in their instruction (c) drive EdTech instructional alignment and integration in a fiscally responsible and strategically sound manner ensuring usage, adoption, and impact of digital tools and applications invested in and (d) ensure data quality is at a high level of accuracy. These resources are critical in providing educators, school leaders, and administrators with appropriate professional learning, devices, content, and methods to use technology effectively in the classroom from administering computer-based assessments to blended learning strategies. Exacerbating this situation, is the expansion of tech responsibilities that the shrinking amount of district EdTech staff have (e.g., security cameras that use the Internet, voice systems that use the Internet, heating and air conditioning systems that use the Internet, etc.). To address the current depleted levels of core district EdTech staff $4.6 million of the requested additional funds will be sent to districts as a KETS Offer of Assistance that districts will match with local funds dollar for dollar.

4. CV-19 pandemic K-12 response efforts unveiled an even greater need for and resulted in the establishment of increased edtech services which were only made possible through temporary CV-19 federal relief funds. With the expiration of these temporary federal funds $9,437,200 in additional funding is needed to sustain the following core value added edtech services initiated/prompted by COVID response/recovery/ongoing preparedness increases:

a) $1.4M to address the current depleted levels of core district EdTech staff which will be sent

to districts as a KETS OA that districts will match with local funds dollar for dollar.

b) $2.05M to address the need of supporting the massive influx in the number and diversity of education technology, the expanding drive for quick feedback through online testing and restoring basic EdTech services for all KY K-12 schools that have been underfunded since 2006.

c) $650,000 to address the current level of district Internet utilization for instructional purposes which will then be sent back out to districts as a KETS OA utilizing the resulting Federal E-Rate refunds received for these K-12 Internet Connectivity services, OET and School Technology operations.

d) $4M to extend the following successful student and teacher front facing initiatives/projects: $2.5M for DLCs stipends match program, Digital Learning and Leading professional learning, Online Virtual Remote Collaborative, STLP standards alignment, KyVL membership extension, CS/IT Academy Growth and 1.5M to operationalize the Customer User Experience System (CUES).

e) $523,000 for Statewide Campus Learning

f) $814,200 for Statewide Online Registration Prime

5. An additional $50 Million request increase to the KETS Baseline - which when issued through participation in the Offer of Assistance program is equally matched for a total of $100M - targets two key areas of sustained need: student instructional devices & technology staffing:

a) Currently today, Kentucky K12 (all school districts) have purchased and deployed over 632,000 Chromebooks primarily for student access. These devices need to be refreshed (replaced) at least every 4 years and as opposed to replacing all at the same time, the best practice approach has been to address a percentage of the total amount based upon the expected lifecycle of the device. In other words, if the expected lifecycle of the device is 4 years, then 1/4 of the total should be refreshed each year in rotating order in order to maintain modern devices in the hands of our students. Additionally, our research with school districts has determined that the average cost of a Chromebook is $316.50. Therefore, the formula used to calculate the ABR for instructional device replacement is as follows:
• 632,000 existing Chromebooks x $316.50 per device (new) = $200M
• Replacement of 1/4 of devices on an annual basis = $50M
• Annual state (KETS) contribution (Offer of Assistance need) = $25M

b) The most important resource in our statewide technology program are the people behind the scenes who keep the technology running, secure, (technical staff), and those working with and coaching teachers and administrators on the strategies to maximize the full instructional benefit of this investment (Digital Learning Coaches). Kentucky K12 Education Technology is significantly understaffed and outmanned when we compare the amount of technology deployed to the total number of staff employed at both the local district and state level. Industry standard ratios outlining the # of support personnel required compared to the amount of technology currently deployed has K12 in Kentucky at only 40% capacity. In other words, through a very conservative lens, we only have 41% (1,299 of 3,147) of the full-time staff needed to adequately maintain and maximize the technology spend. Current trends for Kentucky K12 outlines only an 11% increase in spend on technology staffing between FY19 ($51.8M) and FY22 ($58.4M), but at the same time we're observing a 108% increase in the spend on student computers between

FY19 ($39.2M) and FY21 ($81.8M). Therefore, the recommendation for part two of this ABR is to add 1000 new positions (technical support and digital learning coaches), or convert 1000 of the current part-time positions to full-time. At an average recommended salary of $50K per staff member, the annual total is $50M (state and local combined), with the annual state (KETS) contribution (Offer of Assistance Need) of $25M.

Summary of Issue:

The KETS SY 2018-2024 Master Plan for Education Technology highlights the administrative technology (or school efficiency technology) as well as the integration of instruction with educational technology to transform the way curriculum is delivered and provides students with access to technology. The driving force behind the Master Plan is ensuring that student classroom performance and students' preparedness for professional certifications, higher education, the military and the workforce are kept at the forefront of any educational initiative that involves technology. We have moved far past the time of implementing technology for technology's sake or as a system that does not have direct connections with teaching, learning, productivity, student work, communications, decision making and leadership.

Since 1992, in either June or August of each year, board members are reminded of the annual KY K-12 education technology needs (i.e., up to $366M) that are based upon the most current and already KBE approved version of the KETS Master Plan.

In accordance with KRS 156.670, this projection establishes the baseline education technology need for all Kentucky public schools and districts and includes the annual resources required to sustain the education technology shared services provided by the KDE to all schools and districts statewide. Each Master Plan item represents an industry standard "best practice" approach as opposed to a requirement and carries the expectation that a wide variety of local, state and federal resources should be leveraged to address the ongoing need to implement and incrementally replace all technology components and services (701 KAR 5:110). This up to $366M figure is derived from the 2018-2024 KETS Master Plan that contains the initial acquisition, ongoing operational, incremental replacement and average lifespan of each technology component.

This need projection does not reflect the additional technology components and/or services that districts choose to implement above and beyond the baseline need (e.g., security cameras, video surveillance systems, environmental technology, personal data storage devices, smartphones, Internet access beyond the school campus, etc.), but are recognized as flexible priorities that districts may address exclusively with available local and/or federal resources.

Each district is required to report overall implementation progress for all baseline technology components, services, and staffing on an annual basis. The annual statewide reporting cycle consists of three required components in order to participate in the statewide KETS program:

1. District Technology Plan
2. Digital Readiness Feedback
3. Technology Activity Report

The Master Plan also anticipates that as technology components and services continue to evolve, innovation will possibly reduce the dependency on a particular technology component. As an example, it's expected that as end-user access to digital content increases, the reliance

on printing services will naturally decrease over the six-year span of our current plan. Conversely, as the expectation of high-speed access to digital content continues to escalate, it is anticipated that the bandwidth need associated with Internet access will continue to increase at a moderate rate. The KY K-12 education technology need projection worksheet is found in Appendix H of the approved 2018-2024 KETS Master Plan.

The KETS SY 2018-2024 Master Plan includes seven major areas of emphasis. The areas of emphasis established through a strategic planning process are intended to highlight the groundbreaking progress made over KETS program history and continue placing major emphasis on this work as a primary goal. Additionally, this will help prevent duplicate initiatives, which create confusion and lost time, while simultaneously focusing energy on areas of improvement in order to get better.

These areas will focus efforts during the life of this Master Plan to continue the delivery of quality, opportunity and access to students and staff:
1. Robust Infrastructure and Ecosystem
2. Data Security, Safety and Privacy
3. Budget and Resources
4. Partnerships
5. Digital Curriculum, Instruction and Assessment
6. Personalized Professional Learning
7. Use of Space and Time

One main objective of the KETS 2018-2024 Master Plan is to recognize and build upon the state's past successes. The Master Plan describes how education technology will be used to improve teaching and learning for every child in Kentucky. Its goals are to ensure equity and ease of access to technology, enhance the learning experience in the classroom for students, and prepare Kentucky's children to work in the Information Age after graduation.

There are a variety of federal, state, local and private resources that can address the technology operational management need identified in the KETS SY 2018-2024 Master Plan. The SY 2023-2024 KETS Operational Plan addresses education technology need in the context of technology ownership including initial acquisition, recurring operational management needed to support implementation, continuous improvements in technology, professional capacity of teacher and the people side of technology.

The attached KETS Timeline provides a history of the program's successes since its inception in 1992 while the attached KETS Infographic provides a visual depiction of analytics from multiple sources reflecting the varied technology trends taking place over the past year. KETS Offers of Assistance only represent part of the operational management strategy needed to support each district's technology services.

Budget Impact:

The KETS Trust Fund is one resource used to address districts' education technology operational management need. It was established in the Finance and Administration Cabinet by KRS 157.665(1) and is administered by the School Facilities Construction Commission (SFCC) to provide education technology for the public school system. Funds are appropriated to the Trust Fund in each biennial budget by legislation. Expenditures from the KETS Trust Fund require the initial approval of the Kentucky Board of Education (KRS 157.665(3)); this approval is accomplished through board approval of the KETS Operational Plan. Resources approved by

the KBE, for a KETS Offer of Assistance, project or service in a previous fiscal year, are not required to be approved again. Monies are drawn from the KETS Trust Fund on a fiscal year basis.

The SY 2023-2024 KETS Operational Plan establishes expenditure levels from the KETS Trust Fund for new SY 2023-2024 KETS funds available for the KETS Offers of Assistance program as well as KETS Shared Discounted Services and projects for schools. State Shared Services for schools are those aspects of the KETS system that are provided as direct discounted services to districts and schools at no local cost. KETS Offers of Assistance are sent and equally matched by local school districts. These funds are used in accordance with the KETS Master Plan and the local district's technology plan.

The following must occur before a district receives its resources:
1. State board approves the education technology needs for each district,
2. School Facilities Construction Commission (SFCC) approves the education technology need,
3. The district successfully meets all the statutory requirements of KRS 157.655 and KRS 157.660,
4. The district verifies its final ADA count to KDE, and
5. KDE calculates the KETS Offers of Assistance based on these variables. The districts must follow requirements of the SFCC by receiving approved board action and proof of deposit into a local interest bearing technology account. The SFCC will then wire to the district's technology account.

The SY 2023-2024 KETS Operational Plan also includes the federal, state and local resources that can go toward the SY 2023-2024 education technology needs. For example, the federal E-rate rebates, local district's match of KETS Offers of Assistance, and school facility construction funds all play a significant role in annually addressing a district's education technology needs.

The resources beyond the $15.4M listed in the SY 2023-2024 KETS Operational Plan are not part of the KETS Trust Fund and, therefore, do not require the board's approval; they are only listed for the board's informational purposes so the board is aware of all of the possible funding resources beyond the KETS resources that can go toward addressing the SY 2023-2024 education technology needs

GROUPS CONSULTED AND BRIEF SUMMARY OF RESPONSES:

- KY K-12 Local Superintendents Advisory Council (LSAC) through approval of the KETS SY 2018-2024 Master Plan for Education Technology
- KY K-12 District chief information officers (CIOs) and education technology leaders (The CIO or edtech leader represents education technology at the district level educating and receiving feedback from the superintendent and other district leadership)
- Kentucky Society of Technology in Education (KySTE)
- KDE Commissioner, KDE Associate Commissioners and their representatives on KDE's Technology Planning Council (TPC) (The TPC provides representation, input and feedback from all KDE offices)
- Kentucky K-12 Educational Cooperatives
- KY K-12 education technology vendors and partners (e.g., KY K-12 educational cooperatives)

These groups/individuals are in support of the SY 2023-2024 KETS trust fund allocation.

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Commissioner of Education

Category: ☒ **Educator Workforce Diversity**   ☒ **Portrait of a Graduate Partnerships**   ☒ **Racial Equity Commitment**   ☒ **Student-Centered Accountability System**   ☒ **Early Childhood**   ☒ **District Support**