

# OVERVIEW:

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## U.S. K-12 Public Education Technology Spending

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Thanks to the following organizations who reviewed these findings and provided feedback throughout the research process.



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# Situation ANALYSIS

## **When it comes to edtech spending, we're in the Wild West.**

Nobody knows for sure how much the United States is spending on education technology. It is not tracked or reported in any centralized way.

## **There's no clear answer.**

Even within specific categories (e.g., instructional materials), estimates vary widely. Most sources draw their conclusions based on estimates from publicly available budget data or a sampling of schools and districts.

## **But we know it's a lot.**

Even the most conservative estimates stretch well into the billions.

## **That's where this document comes in.**

This deck provides insight into estimates of *pre-pandemic* K-12 education technology spending. The data, and therefore the estimates, are imperfect. Our goal was not to attempt to provide specific answers, but rather to highlight the magnitude of the spending, spark conversations, and surface critical issues within a shifting landscape.



# K-12 Education Technology SPENDING ESTIMATES

## What's Included:

For purposes of this overview, we grouped spending and associated estimates into four categories:

- **Digital Instructional Materials:** Digital textbooks, workbooks, manipulatives, and program subscriptions.
- **Networks & Devices:** Infrastructure, bandwidth, and hardware devices used for computing; including the staff necessary to maintain equipment and networks.
- **Formative and Summative Assessments:** Classroom assessments and state-level exams.
- **Professional Development:** Formal training and informal training for educators that either relies on technology, or is focused on the use of technology.

## What's Not Included:

Our spending assumptions do not include:

- Safety and security technology
- Transportation-related technology



# TOTAL EDTECH SPENDING

Estimates suggest U.S. K-12 schools spent between \$26 billion and \$41 billion **annually** on education technology during the year before the pandemic.

*Given the impact of the pandemic, it is possible that the 2020-21 spending could exceed \$50 billion.*



# Spending on **DIGITAL INSTRUCTIONAL MATERIALS**

SIMBA Information estimates the 2019 total K-12 instructional materials spend was roughly \$9 billion, and that 60% of it was spent on digital instructional materials. That works out to an estimate of **\$5.4 billion**.

MDR estimates the 2018 total K-12 instructional materials spend was roughly \$263 per student, which extrapolates to a total instructional materials spend of roughly \$13 billion. Using SIMBA's estimate that 60% of all materials spending is for digital materials yields an estimate of **\$8.1 billion**.



Sources: CENSUS (2018), NCES (2019), SIMBA Information (2019), MDR (2018).



# Spending on NETWORKS & DEVICES

The Council of Great City Schools estimates that the median quartile of schools spent \$306 per student on networks & devices, including systems staffing, in 2018. Extrapolating to 50,654,000 K-12 public school students works out to **\$15.5 billion**.

 \$306/  
student



50,654,000  
K-12 students



**\$15.5 billion**



# Spending on **ASSESSMENTS**

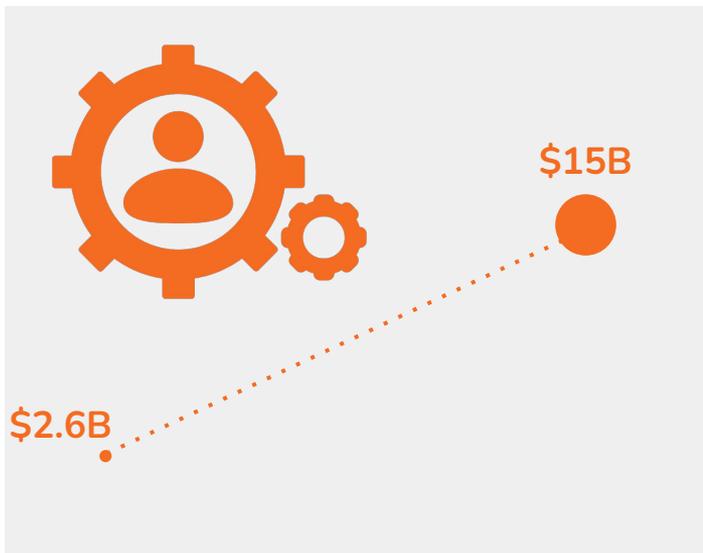
SIMBA Information estimates that \$1.6 billion is spent each year on classroom assessments, and \$1.1 billion is spent each year on state level exams, for a total of **\$2.7 billion**.



**\$2.7 billion**



# Spending on **PROFESSIONAL DEVELOPMENT**



We were unable to identify any reliable estimates of annual spending on PD that is either *delivered* via technology; or is substantively focused on *teaching educators how to use technology* (including particular edtech tools) to support instructional practices.

We estimate total U.S. annual PD spend to be roughly \$26 billion, based on research suggesting that districts spend an average of 3.6% of their annual budgets on PD, and using total annual spending data reported by the U.S. Census.

From there, we have no reliable estimate of what percentage of that ~\$26 billion is spent on PD that is either technology-dependent or technology-focused.

If we use SIMBA Information's estimate that 60% of *instructional materials* are digital, that would extrapolate to annual digital PD spending of **\$15 billion**. Arbitrarily estimating a much lower estimate of 10% would extrapolate to **\$2.6 billion**.



# Discussion Considerations

Regardless of which spending estimates are most accurate, we are investing a huge (and growing) amount into technologies that we expect to perform as advertised.

- What are the **legal & regulatory requirements** for edtech products to prove their efficacy?
- Who currently performs **efficacy research** on these products? Why?
- Should we expect individual districts to do so? If not, **who should**?
- Why do these technologies perform **so well** in some schools and **so poorly** in others?
- What are the factors that **explain the variation** in performance?
- What information do our 13,000+ districts need in order to **make effective decisions** about which edtech to choose and how to best implement it?
- Who should **keep track** of what is being spent and used?
- How can educators nationwide **learn from each other's** experiences?
- Whose **responsibility** is it to answer these questions?

