GETN

Global EdTech Trialing Network

United States

Capital Flows in EdTech Evidence Generation

Version 1.0

OVERVIEW

EdTech offers a lot of promise. It has the potential to revolutionize learning and better prepare all students for future success. However, insufficient funding for research and development ("R&D") often keeps effective early-stage interventions from progressing through the evidence-building tiers to shift outcomes at scale. Within the U.S., capital tends to flow most readily to EdTech products when they are in the early stages of developing a logic model or much later – when pursuing a quasi-experimental study or random control trial. The lack of funding to build upon research between these two ends of the spectrum breaks down the supply chain of R&D - or in this case, is like a relay race where we fail to pass the baton. Ultimately, this limits the critical exchange of knowledge that drives innovation and can disproportionately impact marginalized and underestimated communities. We must increase the pipeline, consistency, and handoff of capital flows across the evidence-building tiers to advance a more robust and equity-centered innovation infrastructure in EdTech.

BACKGROUND

GETN-US is a collaborative group of EdTech researchers, founders, nonprofits, and capital providers—venture capitalists, philanthropists, and federal leaders—from the United States committed to working together to accelerate the success and scale of effective, usable products that enhance students' learning.

Last fall, GETN-US released "Tenets & Principles of EdTech Trialing Networks & Environments," outlining a new shared language to drive a modernized and equity-centered approach to conducting EdTech R&D in learning environments. The report includes a summary of the barriers to and benefits of a more robust innovation infrastructure and the guiding ideas – four tenets and ten principles – necessary to yield unprecedented breakthroughs in the field.

Specifically, the "Tenets & Principles" report speaks to the need for durable funding within K-12 education systems to better coordinate and facilitate EdTech R&D. The first principle calls for support for participant compensation, intermediary coordination, and EdTech adoption by schools and districts, among other needs.

- While resource constraints remain a barrier to establishing EdTech trialing networks broadly, capital flows in this space acutely impact two areas:
- The ability to evaluate EdTech products and their potential impact aligned to the US federal guidelines, the ESSA tiers of evidence; and,
- The ability for EdTech products to continually iterate, improve, and scale innovations that demonstrate promise.

This brief explores where and how funding that supports EdTech research, development, and evidence-building is allocated to entrepreneurs, researchers, and/or schools. Through this work, GETN-US aims to increase understanding between these stakeholders and capital providers about where gaps exist and where intentional hand-offs would create a more robust pipeline of high-impact EdTech solutions.

METHODOLOGY

To analyze the capital flows in EdTech R&D, GETN-US members engaged in a series of collaborative meetings. They addressed the central question: which capital providers support specific Tiers of Evidence at each stage of an EdTech product's go-to-market journey? Leveraging their diverse expertise, members mapped out where capital is being allocated across the sector, including where they are making, receiving, and seeing investments. This crowd-sourced data was synthesized into a frequency map, visually representing funding patterns and forming the basis for the report's recommendations.

KEY DEFINITIONS

EdTech: (a combination of "education" and "technology") refers to hardware and software designed to enhance teacher-led learning in classrooms and improve students' education outcomes. In this brief, it is used generally to speak to digital learning products (DLPs), digitally enhanced curricular resources, and tech-enabled services that may be organized as nonprofit or for-profit organizations. This work examined capital flows agnostic to governance structures.

Capital: the financial resources from venture capital firms, philanthropic organizations, and government sources that support the development, evaluation, and scaling of EdTech products.

Evidence: the Tiers of Evidence (I-IV) as outlined in the Every Student Succeeds Act "demonstrate a statistically significant effect on improving student outcomes or other relevant outcomes based on – "

- (TIER I) strong evidence from at least 1 well-designed and well-implemented experimental study;
- (TIER II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study;
- (TIER III) promising evidence from at least 1 well designed and well-implemented correlational study with statistical controls for selection bias;
- (TIER IV) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention will likely improve student or other relevant outcomes.

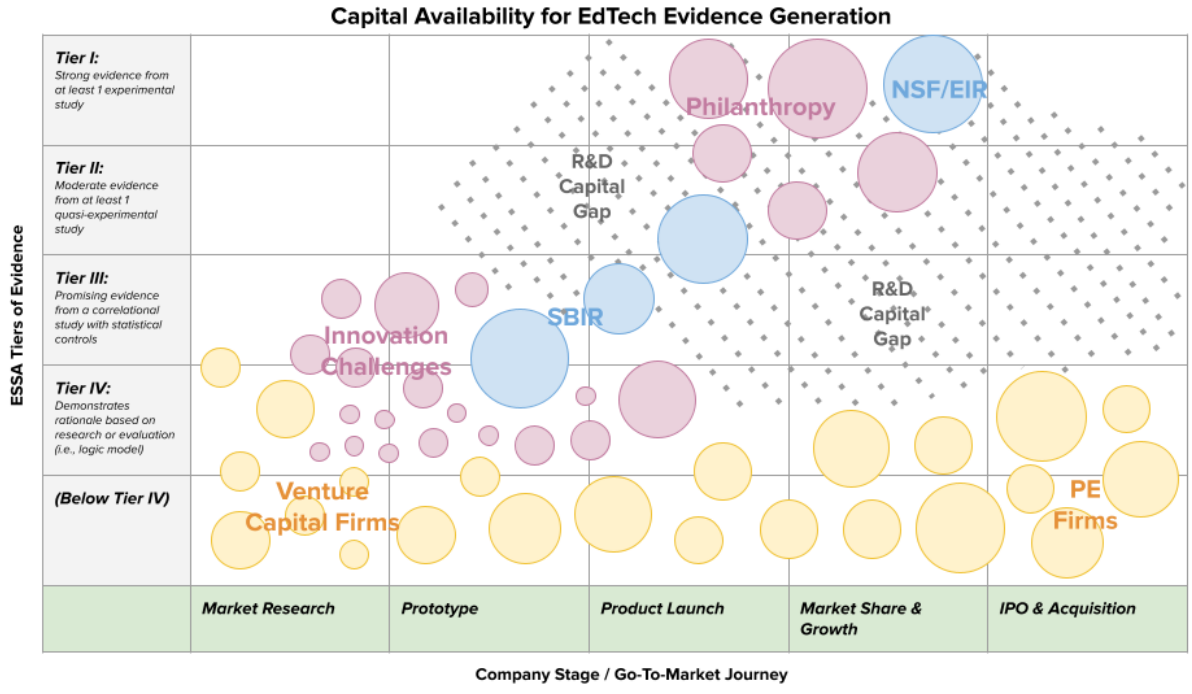
To understand how the tiers apply to education technology in particular, this set of resources outlining each tier and EdTech development and implementation from the US Department of Education is especially relevant.

CAPITAL AVAILABILITY FOR EDTECH EVIDENCE GENERATION

Q: *Which capital providers (venture capital, philanthropy, or federal sources) will pay for a specific Tier of Evidence at each stage of an EdTech product's go-to-market journey?*

Conceptually, the evidence-building journey of EdTech products should operate like a relay. It requires coordination between runners—entrepreneurs, researchers, and schools—and access to R&D capital can make or break the transitions. Sustaining the work and crossing the finish line requires funding handoffs between private, public, and philanthropic capital.

In today's market, however, few are able to complete the race. It is common for a wave of EdTech products to take off from the starting line, make it through the first or second leg, and then fumble the baton on evidence-building somewhere between launching and gaining market share. The runners are tripping on R&D capital gaps, and promising innovations are left behind in the track's dust.



This chart illustrates capital flows across the ESSA Tiers of Evidence and the stages of an EdTech product's go-to-market journey. Generally, each circle represents a funding source, and its size reflects the level and/or frequency of investment made at that juncture. Venture capital is depicted in yellow, philanthropy in pin, and federal sources in blue. The gray dotted lines represent identified R&D capital gaps where investment from these providers is lacking, and EdTech developers and schools are largely responsible for funding evidence-building efforts on their own.

In theory, EdTech products should progress from the bottom left corner of the chart toward the top right over time. However, this work identified a notable gap between the prototype and market growth stages for Tier II and Tier III evidence. Today, there is a "missing middle" in R&D capital – pushing product development teams toward commercial viability rather than anchoring their work in the sector's problems of practice and, often, incentivizing a jump from Tier IV to Tier I research unnecessarily.

Due to funding gaps and difficulty navigating handoffs between the available capital sources, this "missing middle" slows the relay race of innovation. Most importantly, it can perpetuate disparities as tools or interventions are not adequately studied across contexts or diverse communities. It tends to create a bias for topics of interest to specific funders, leaving behind important but less profitable intervention opportunities, such as advancements in special education technology.

NAVIGATING THE R&D CAPITAL GAP

To advance a more robust and equity-centered innovation infrastructure in EdTech, we need to smooth out the handoffs that facilitate evidence-building. Ideally, the most impactful interventions not only survive but are far more rapidly identified, accelerated, iterated upon, and scaled.

One thing inhibiting seamless "hand-offs" is the lack of transparent data available indicating exactly who is funding which companies for what types of R&D. To move toward a more functional market, first and foremost, we must address the data collection challenge. Curating reliable information on EdTech capital flows is a complex task and was discussed at length during the data collection process for this brief. Beyond federal sources, details around investment priorities and levels tend to be opaque. Collection efforts are hindered even further by lacking a common taxonomy and little incentive to shift away from the status quo. This especially impedes capital flows to those who are historically marginalized in the technology community – women and people of color.

Such fragmentation leaves EdTech innovators navigating two gaps – a knowledge gap and an availability gap – generally represented in the graph as R&D-related capital gaps. These gaps are not impossible to overcome, but success requires substantial social capital to navigate the opacity obscuring R&D-related investments. While other industries, such as healthcare and defense, benefit from robust networks of brokers to facilitate handoffs, EdTech lacks these systemic supports (i.e., In-Q-Tel). This lack of intermediaries to facilitate research and capital handoffs inhibits the market from developing robust innovations in the EdTech ecosystem. As such, many promising evidence-building initiatives are stranded mid-development because founders don't have knowledge of additional investment opportunities or the relationships to access them directly.

OPPORTUNITIES FOR ACTION

Creating a common data taxonomy for EdTech investment is imperative to address these challenges. More robust—and openly available—reporting on investment priorities and opportunities has the potential to shorten the knowledge gap. It could also significantly reduce the necessity of social capital to translate coded knowledge and relationships to transition between venture, philanthropic, and public support on the way to scale. LearnerStudio and Cambiar Education's forthcoming "Catalytic Capital" paper explores this opportunity in more depth; we believe taking action to address these challenges will significantly improve market conditions within EdTech R&D and for innovation entrepreneurs broadly.

Additionally, K-12 funders should consider the Tiers of Evidence more robustly within their portfolios. In particular, Tier II and Tier III for product launch and market growth stage innovations need to be more deeply considered. Creating demand for evidence and directing resources toward progressive R&D efforts should drive more innovations toward quality and impact.

The EdTech sector can address current challenges and seize opportunities for transformative action by fostering a coordinated ecosystem with strong handoffs and focusing on impactful innovations.

GET INVOLVED

Thank you to the GETN-US members who contributed to this paper. Please note that this document is version one. We welcome your feedback and plan to continue updating this resource as our learning continues to evolve. Get in touch with our teams using the links below.

GETN

The Global EdTech Testbed Network is a collaborative effort initiated by Jacobs Foundation to advance best practices in the field of EdTech co-development and evaluation through "testbeds" or authentic school environments in which to trial emerging education technologies. GETN-US is a subgroup of the collaborative focused on advancing this work within the context of the U.S. K-12 education system.

Leanlab Education

Leanlab Education is a nonprofit organization specializing in codesign research between education technology companies and schools. The organization matches parents, learners, and educators with EdTech developers to inform, develop, and evaluate the next generation of classroom tools. Leanlab Education is a partner organization of GETN and co-leads the GETN-US work.

InnovateEDU

InnovateEDU is a national nonprofit focused on catalyzing education transformation by bridging gaps in data, policy, practice, and research to center the needs of the field in accelerating innovation toward an equitable, inclusive, and radically different future for all learners. The organization co-leads the GETN-US work.