EdSolutions

Market-Informed Impact® in Education

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Here's a counterintuitive fact: in 1900, New York City had a fleet of electric taxis. Electric cars, in fact, were commonplace and popular in American cities at the turn of the 20th century. Set against the grime, groan, and clank of the era's gas and steam-powered cars, electric vehicles offered a more refined ride.

Several breaks of fortune advanced gas cars instead. The 1901 discovery of Texas crude oil made gas cheap and seemingly unlimited; Henry Ford's ultra-efficiently produced Model T debuted in 1908, at less than half the price of an electric car; and the US developed a sprawling system of roads connecting cities, but lacking ready access to electricity. By the 1930's, tendrils of new infrastructure had unfurled across the map of America – all of it built on the once-improbable, grungy premise of the gas car.

Here we've mostly remained: culturally bound to this technology that feels singular and inevitable. But it wasn't. If the historical chips had landed a bit differently, we might all have grown up plugging in the car at night. As a country, we might have sprouted a car-charging network rather than the existing complex of gas stations, tanker trunks, and oil pipelines. Bruce Springsteen might have found his redemption somewhere other than the roaring engine and the dirty hood.

Which probably would have been better, Springsteen notwithstanding. Gas power has revealed serious downsides over time. Even before modern consensus on the long-term harms of emissions, the plainer problems of smog, oil shortages, and oil spills were apparent. The oil crises of the 70's, in fact, awakened long-sleeping interest in electric vehicles – kicking off the research and development efforts that are only now being met with encouraging policy, infrastructure, and public appetite. As these market forces line up, so follows meaningful change: in 2022, 6% of new car purchases were electric, but analysts project that their market share will explode to over 50% in the next decade.

It appears the market momentum that gathered implacably around the gas car over a century ago – a perfect storm alignment of supply, demand, and enabling conditions – is gathering once again, this time around the electric car.

1 UhttpSs:/D/wwewp.ente.rgoy.gfovE/anrtieclers/ghiystoroy-nelecttrhic-ecarhistory of the electric car
2 S&P, 2022

A Market Lens on Education

Education innovations also exist in a market – and market forces determine whether and when they take off.

We work in K-12 education, but we've been thinking about the curious case of the electric car recently. Because our many collective years working in this troubled sector have led us to view it as, in a sense, a world full of electric cars: meaningful, sensible, within-reach innovations that could have big, positive impact. But they just get stuck. It's the most tired and tiring challenge in education: the good idea that doesn't scale; the kids it doesn't reach. And we believe that a **market framework** (see ours, in Figure 1) is one of the most useful ways to conceptualize and address it.

Most people aren't entirely comfortable discussing education as a market. Or when they hear "education" and "market" in the same sentence, it evokes the privatization of schools, or the commodification of a public good. This is not what we advocate. But the fundamental elements of a market – supply, demand, and a host of enabling conditions that influence both – exist in education, as in any arena where vast sums of money are spent.

Supply	Demand	Enabling Conditions
Organizations that sell products and services to schools, districts, and states ***For example:*** Providers of curriculum, ed tech products, assessments, tutoring services, professional learning	The decision-makers who purchase these products and services; the educators who implement them ***For example:*** School, district, and state leaders; teachers and students	All of the external stakeholders who influence supply and demand dynamics ***For example:*** Policymakers, researchers, thought leaders, media outlets, funders and philanthropists

Figure 1: The Education Market. Conceptualizing this ecosystem as a market can help us better understand and tackle some of our biggest education challenges.

This market ecosystem is fueled by public dollars, and it's idiosyncratic in ways: demand is made up not of monolithic consumers, for example, but of distinct buyers (often districts and schools) and users (often teachers and students). But it's a market nonetheless, and one that often doesn't work particularly well.

Our approach - which we call Market-Informed Impact® - is intended for anyone engaged in systems-level thinking about education, but it's especially relevant for philanthropists and impact investors. Most participants in education reform – policymakers, researchers, curriculum developers, district and school leaders, teachers – work on one piece of the puzzle. But funders have the privilege of a high-altitude, strategic orientation: the ability to take in the entire market ecosystem, and to play a key role coordinating across it. As our public schools continue to recover, haltingly, from the pandemic - and as generative AI introduces new, potentially transformative innovations to education - we urge philanthropists to bring this way of thinking to bear in their vital work on behalf of students.

What is Market-Informed Impact®?

Market Informed Impact (MII) is an approach to generating social impact. We seek to better understand, navigate and shape educational markets so they work more effectively and more equitably for students.

Education is, and always should be, a public good. It is also a market that represents over **$1.5 trillion** in annual Prek-12 spending in the United States[3]. EdSolutions believes that understanding these market forces - from procurement to investment, from supply to demand – is essential to achieving lasting impact.

The Electric Cars of Education

Many good ideas stumble or stall because market dynamics don't align to advance them.

As we saw with our electric car example, all three market elements – supply, demand, and enabling conditions – must develop in concert for an innovation to find broad traction. Unreadiness in one or more of these market domains can constrain or defeat even the most promising ideas. To illustrate this principle in the education context, we can consider any number of innovation or reform efforts that have languished under similar market dynamics.

Take, for instance, the case of **curriculum-aligned PD** (professional development). We have robust evidence that PD for teachers is most effective when it's tied directly to the content they teach students. Internationally, all high-performing education systems train teachers deeply and specifically in how to teach their curriculum[4]; indeed, in the American context, every study of PD that has detected student learning gains has focused on a program aligned with a high-quality curriculum[5]. Studies of other kinds of PD tend to find no effects at all[6] – or, perversely, negative effects on teacher morale[7].

This truth has been established in the research literature for over a decade, and grasped intuitively for much longer than that by every teacher sitting through a whole-staff, content-agnostic "workshop" in a cavernous auditorium. Yet this PD model – get everyone together, deliver a one-size-fits-all training, move on – continues to dominate[8]. Our recent analysis suggests that about three-quarters of district spending on PD nationally is for such "general training" unconnected to academic content. And we're talking about a lot of time and money; a 2017 study estimated that districts spend an average of $15,000 to $20,000 per teacher per year on PD[9], a figure that is surely higher now.

3 NCES 2023

4 Fuji, 2014; Jensen et al, 2016

5 August et al., 2014; Finkelstein, Hanson, Huang, Hirschman, & Huang , 2011; Gallagher, 2016; Gallagher, Woodworth, & Arshan, 2016; Kim et al., 2011; Meyers et al., 2016; Penuel et al., 2011; Perry & Lewis, 2011; Taylor, Roth, Wilson, Stuhlsatz, & Tipton, 2016

6 Garet et al, 2008; Garet et al, 2011

7 Gates Foundation, 2015

8 Jacobs & MvGovern, 2015

9 Miles et al, 2017

There's a dedicated field of researchers, advocates, and mission-driven PD providers frantically waving their arms at this issue and striving for change[10]. And we do see pockets of localized improvement here and there across the country. But at the macro level, curriculum-aligned PD today is like the electric car a generation ago: an available but unconventional, buyer-onerous choice.

In terms of **supply**, for one, curriculum-focused PD is simply not what most major providers offer. Because it's hard. This model demands that PD providers get to know a school's curriculum deeply, so they can train teachers in implementation – an altogether different proposition from the modular, standalone workshop that can be carted into any school on any day. Alternatively, curriculum providers themselves could deliver aligned PD in schools. But this, again, is labor-intensive and outside the business models and financial interests of the giant, multinational publishing companies that lead the curriculum market.

Both of these things exist on the supply side; teacher development players like TNTP and UnboundEd, for example, offer curriculum-aligned PD; as do newer, smaller curriculum providers like Amplify and EL Education. But they don't win in the overall market, because their offerings don't fit as comfortably into well-worn demand-side grooves. Often in districts, for example, PD and curriculum are separate offices, each with distinct personnel, timelines, and accountability systems[11]. Many districts, as a matter of course (and according to the dictates of many teacher contracts), schedule isolated "in-service" days for all-staff PD – rather than staggering regular, small-group sessions over time, as a more content-focused approach calls for.

Finally, in terms of enabling conditions, there's little policy pressure to change this state of affairs; most districts have wide latitude when it comes to PD. This issue also lacks the "buzz" that often helps compel policy change. Consider recent state policy action on the "science of reading," for example (which we discuss further below); or on "critical race theory." These education topics have insinuated themselves into the bigger national conversation by striking plenty of lay people as both materially important for kids and addressable by government. Curriculum-aligned PD, on the other hand, is less graspable, less seductive, less obviously high-stakes – a concern for education journals, not broad cultural debate.

So we have our familiar story: researchers, leaders, and educators understand that the mainstream PD approach has major problems. An alternative, more effective model is available. But progress towards it is halting, at best, because curriculum-aligned PD is an electric car in a landscape built for gas. To achieve anything we could call "systemic" change, there would need to be significant, synchronous movement across each domain of the market.

10 Wiener and Pimental, 2017, is a good overarching primer on this field.
11 Wiener and Pimental, 2017

Aligning Market Dynamics for Progress

Meaningful change comes to education when all three elements of the market are activated together.

Curriculum-focused PD is just one example among many promising education innovations that bump into the ceiling of institutional reality and stagnate. The pattern has come to feel so inexorable during this last generation of constant reform efforts that now there's a palpable fatigue, a "nothing works" nihilism, in the air. This is wrong, too. Some things do work, and they can scale for big impact – when supply, demand, and enabling conditions align. To demonstrate the possibility of such alignment, let's turn to a more hopeful case in point: the "science of reading."

Teaching kids to read is the most crucial charge of early schooling; learning-wise, everything flows from it. And despite the nominal "reading wars," it's been clear in the research literature since the 1970's that students – especially those from historically underserved and poverty-impacted populations – benefit greatly from literacy instruction that emphasizes both explicit phonics and purposeful knowledge-building[12].

But historically, this approach has not dominated in our schools. New York City, for one – the biggest district in the country, with 72% of its students considered "economically disadvantaged"[13] – has for the last generation doggedly implemented Lucy Calkins' fuzzier, "vibes-based" literacy instead[14]. We're not picking on New York; they've been in good company nationwide. For years, in spite of a rip current of studies underlining the importance of a more structured literacy approach, market inertia and incoordination held it back from countless kids.

But today, the science of reading is decisively on the march. Districts everywhere are overhauling their literacy programs to incorporate its key principles; it's an "idea whose time has come.[15]" Less mystically, it's an idea that's benefitting from the alignment of all three market forces.

In terms of enabling conditions, for example, the past decade has witnessed not only a deepening of the research on the science of reading, but a parallel – and likely more consequential – endeavor to translate this research to a broader audience. Tim Shanahan's literacy blog, for instance, is pitched approachably at teachers and literacy coaches rather than academics; Natalie Wexler's work on the "knowledge gap" elevated early literacy as a general interest issue outside the education sector. Efforts like these have made dense scholarship digestible for non-experts, spelled out the social stakes of not raising proficient readers, and even launched the science of reading story to frequent coverage in mainstream and other popular media.Growing public awareness of the science of reading, as well as continuous bad news about reading achievement, is fuelling a massive, state-level push for change. Since 2013, more than 30 states have mandated that literacy instruction be grounded in the science of reading.16 States have traditionally left such instructional choices to districts; the rapidly falling dominoes of policy interventions on this front represent a real departure, a new appreciation of the science of reading as an educational imperative.

12 Moskowitz, C. (2017). Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done about It. Scientific American, 316(1), 68-68.

13 NYCDOE

14 New Yorker on Lucy Calkins in NYC

15 Kingdon, J. W., & Stano, E. (1984). Agendas, alternatives, and public policies (Vol. 45, pp. 165-169). Boston: Little, Brown.

16 EdWeek

These emergent enabling conditions – shifts in both ambient public sentiment, and in the formal policy environment – are, crucially, being met with a transformation of **supply.** To guide reading instruction, elementary school teachers rely heavily on the curricula their school districts purchase.[17] So for the science of reading to "take" in classrooms, the companies that develop these curricula need an incentive – beyond the exhortations of researchers – to integrate its difficult practices.[18] For many big publishers, this means extensive revision or wholesale abandonment of their legacy offerings.[19] It's a tall order. But it is indeed happening, driven by publishers' need to stay relevant against a backdrop of new policy and the disruptive entrance of more agile, tech-forward providers. Many of these newer providers explicitly announce the science of reading as part of their identity – implicitly calling out and pressuring the sector as a whole.

Finally, we see demand materializing as well: the change is nascent, but by all indications, elementary schools nationwide are implementing the science of reading in increasing numbers.[20] This pillar of the market is critical for impact on students, and hardest to activate. It depends fundamentally on educator buy-in, capacity, and execution. But optimistically in this case, participants in the other domains of the market are taking seriously the human challenge involved on the demand side. Many of the new state policies include significant teacher training components, for example;[21] many suppliers are offering extensive implementation support alongside curriculum products. New York City, for its part, has both overhauled its literacy approach and undertaken a mass-scale teacher-training program in the past year.

The mechanisms of the market, in other words, are finally creaking, grinding, and clicking into place to change classroom reality – to change the way we teach kids to read.

Keys to a Market-Informed Approach for Funders

Philanthropists and impact investors can apply several key principles to activate real, sustainable change across the education ecosystem.

Like with the electric car, so too with the science of reading: the conceptual seed was there but mostly fallow for years. Then suddenly, we see blooming everywhere. Look closer though, and there's predictable market weather at work. The science of reading is taking scale because the critical triad of supply, demand, and enabling conditions have finally developed sufficiently and lined up in its favor.

It's good news. But the long wait for this moment has also had serious costs. Consider the millions of students in New York City alone who started life with an unsteady literacy foundation as this change percolated, too slowly, without real intention or design. But it doesn't have to be this way; we needn't be hostages to serendipity when it comes to good education ideas lifting off. Market forces don't align like stars, after all, but respond to influence and incentives.

17 RAND
18 EdWeek
19 EdWeek
20 See, for example, news out of North Carolina
21 EdWeek

This is where philanthropists come in. From their distinctive, strategic seat in the ecosystem, they can help shape market dynamics so the proverbial "electric cars" of education take scale. At this fragile juncture for our schools – pandemic recovery stumbling forward, political battles seething and sidetracking so many – education funders would do well to embrace this pragmatic, market-informed approach to spreading our collective best ideas for helping kids learn to read, write, and do math.

It's not an easy task. It requires program officers, the people who direct philanthropic investment, to be several things at once: *visionaries*, able to spot those electric cars; careful *surveyors* of the relevant market conditions that surround them; and strategic animators of progress in multiple, active market domains. But our work with education funders suggests that several core principles can help streamline and systematize this process.

1 Be a visionary: Identify the best ideas for the most vulnerable kids.

Program officers must discern those areas of education research and practice that hold the most promise for advancing learning among students at the margins. This doesn't mean pursuing the thread of every program that's worked somewhere, or every study boasting notable effects. To the contrary, it demands cutting through a lot of speculative noise to pinpoint meaningful learning innovations, however nascent, that are also realistic and replicable across a complicated system.

Key questions to explore include:

- Where are the most significant barriers to academic success for students who come to school without socioeconomic advantages?
- What are the promising and practical solutions for addressing these barriers – based on the best evidence from research and experience?

2 Be a surveyor: Diagnose where those ideas stand from a market perspective.

Program officers must understand the context, climate, and future potential of these ideas comprehensively – in terms of all three domains of the market.

Key questions to explore include:

- What does the landscape of enabling conditions look like? How strong, clear, and well-understood is the research case? How friendly are federal, state, and local policies?
- What does the demand side of the market look like? To what extent do districts and schools show awareness of and appetite for this idea - and the capacity to implement it?
- What does the supply side of the market look like? Which instructional providers (of curriculum, learning technologies, and teacher training, for example) are incorporating this idea effectively? What's their relative position in the market, and why?

3 Be an animator of progress: Use this information to pinpoint the most valuable moves for a funder.

The exercise of collecting market information is instructive. It helps philanthropists understand how ready – or unready – any given idea is to take scale, as well as what might need to change for it to get there. Funders should focus on encouraging this kind of incremental but strategic change.

Key questions at this stage depend on the relative market status of a given idea. But examples might include:

- For an idea that's novel, pioneering, or marginal - how could a funder help catalyze interest by deepening the research base, or increasing public awareness of the problem and potential solution?
- For an idea that's already experiencing traction in one or more domains of the market - how could a funder help encourage the other domains to follow suit?
- For an idea that's seriously gathering steam and reaching increasing numbers of students - how could a funder help accelerate the progress underway, and spread it to more people and places?

This is by no means a comprehensive accounting of the questions funders should ask themselves or the steps they should take. It's a mental model – an analytical lens on a complex world where progress is possible but hard to come by at scale. Our work with funders suggests that they benefit greatly from this more holistic but streamlined way of understanding the education ecosystem and how to situate their investments within it. We hope that other philanthropists and stakeholders in education reform can leverage this framework to help drive the progress that American schools need right now.

EdSolutions is an education-focused social impact consulting firm. We help philanthropies and mission-based organizations use the levers of the market to drive impact. We know that a thorough understanding of market dynamics is the key for research-based solutions that will scale impact to the students who most need them

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