METRICS FOR THE MULTIVERSE

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THE BOTTOM LINE

- Historical data may be misleading in some contexts, and new measures may better assess your school's financial health.
- Change in your school's investments' value, debt service ratios and rate of leadership turnover are some measures that can indicate stability and strong defenses in challenging times.
- Determining how much of your school's budget is spent on core deliverables is key when schools may need to pivot regularly to online learning.

This piece grew out of an ongoing partnership between NBOA and the Enrollment Management Association focused on strengthening the relationship between business officers and enrollment managers to address the affordability and accessibility of independent schools. For more on this partnership, see "Attention to Retention" on page 4 and "Resources for Navigating a Disrupted Landscape" on *NetAssets.org.*

How strong is your school's financial bulwark? Some data points mean more than others in a changed environment.

It's strange how common the phrase "the new normal" has become. There is nothing normal about the times we live in. That fact presents a huge challenge to school business officers, enrollment directors, heads and trustees as they seek to apply familiar metrics and tools of budgeting and enrollment projection to manage in the present and plan for the future.

This past summer required us to use skills we didn't know we had, as we did scenario planning and budgets for on-site physically distanced instruction, hybrid in-person and online models, and 100% remote classrooms. Each scenario was run with multiple enrollment and staffing assumptions, as we couldn't be sure how many families would honor their enrollment contracts and how many teachers and staff would choose not to return to work depending on each scenario. It's been like trying to plan for the school's future in multiple timelines or playing Mr. Spock's multi-level game of Vulcan Chess. The gameboard — or should I say dashboard — has moved beyond two dimensions. We need metrics and tools to measure school performance in the multiverse.

I set out to find a solution to this need as part of my work to help schools explore potential collaborations and co-ventures, up to and including merger and acquisition. Every school needs to measure performance and project the future, but this need is doubled for schools considering a unification. This spring and summer, I've been working with John Gulla, executive director of the Edward E. Ford Foundation and a LearnCollab Advisory Board member, to think through these issues. As a former

independent school business officer myself, I've seen my share of school metrics, but John has examined the financials and dashboards of hundreds of independent schools in his role, as he considers applications for financial support.

You may have seen John's writings or heard him speak about the three buckets of independent schools. He uses the buckets as a heuristic devise to get people to think about the challenges facing independent schools. He sees the borders between the buckets as porous, and defines them like this:

Bucket 1

Schools with secure futures due to market demand, reputational capital, significant endowment and philanthropic support. Financial aid is 100% need-based. Fewer than 20% of independent schools fall into this category.

Bucket 2

Schools that are not market leaders, but clear-eyed about the challenges and are attempting to evolve. They have an informed board and stable leadership that has identified risks and opportunities, and they have a plan to address them. These schools are leaning into change and may have been the nimblest innovators in the pandemic.

Bucket 3

These schools are either ignoring the financial realities or making only minor efforts to come to terms with the long-term threats, and their solvency is at risk. Maintenance is deferred. Need-based aid is reduced to save money or enrollment is artificially inflated by offering discounts to families with no proven need. Board strategy is inconsistent and there is instability in the senior leadership ranks.

I talked with John about the metrics he was using to categorize schools, and how those and additional measures might apply to judging and projecting school performance in the multiverse. That conversation and the original three buckets differentiators has generated these key metrics for navigating the school multiverse.

Retention

What percentage of 2019-20 students, excluding graduates, returned for the 2020-21 school year? This measure gets at several key issues.

- How well did your school pivot to remote learning in spring 2020 and what faith did continuing families have that your school would successfully deliver an engaging core academic program and social/emotional community during the uncertain 2020-21 school year?
- How strong is demand for your school? Does your school have a revolving door? If parents feel they can drop out for an uncertain 2020-21 year and easily return for the 2021-22 school year, your school is in a weak negotiating position. If a spot at the school remains coveted, people are more likely to pay tuition and stick it out so as not to lose the benefits that first drew them to your school.
- How strong is your local economy? As a date in college once told me, "Sometimes it's not all about you!" Your school may have hit it out of the park with online learning and have a strong following in the community, but those things won't save you if your region is especially hard hit by the economic downturn. This is an environment in which I see relatively strong schools seeking to merge with one another in order to keep their mission vibrant in a market with declining demand.

Look at how your retention is changing and how it compares with other schools in your market. Dig deeper and find out what underlying issues have contributed to your retention trends. You can never fill a leaky bucket. You've got to plug the attrition leaks.

Bulwark Score

How strong are your school's operating fortifications and defenses — that is, how well is your school prepared to weather financial challenges in terms of solid endowment and reserves, manageable debt, and stable leadership? This metric draws on several elements in John Gulla's bucket scoring system. Here's how to calculate it.

- **Conservative Investment Management**
  What percentage of value did your investments/endowment lose between 2007 and 2009? Subtract out new money additions and withdrawals to focus on investment returns. Nearly every school's investment portfolio took a sizable hit during this period, so gains are not to be expected. This exercise instead identifies conservative investment philosophy. From early July 2007 to the same point in 2009, the S&P 500 dove from 1,530 to 879, a 42.5% decline. How did your school's endowment over that period? A conservative 60/40 stock/bond portfolio lost just over 30% in that span of time. Some schools with aggressive investment committees saw values drop by over 50%.

  If your combined invested endowment and reserves are less than 25% of the annual operating budget, give yourself a negative 5 and move to the next metric. Your goal is to build financial reserves.

  For schools with investable endowment and reserves that cover more than one financial quarter, give yourself a point for every percent your investment portfolio performed better than a 35% loss, or a -1 point for every percent your portfolio loss exceeded 35%.

- **Debt Service/Revenue Ratio**
  While earning my MBA, I learned that leverage was a key tool for creating value. Money borrowed at a low fixed rate can be used to generate returns that exceed your interest rate, and you get to keep the difference. Homeowners can see this when they total up increased

Strategic Planning Tools from NBOA

NBOA's BIIS data platform is open for data collection October 26–November 20. When reporting opens, NBOA member schools that submit their data can create customized regional and national peer groups and benchmark key metrics like retention, endowment draw and debt ratios. Visit ***nboa.org/research/biis*** for more information.

NBOA members can also tap into a number of strategic financial planning tools, including:

- The NBOA Financial Dashboard
- The Composite Financial Index Calculator
- Key financial ratios

Boards of trustees and the school leaders who work with them may benefit from reading NBOA's new book, "Effective Financial Governance for Independent School Trustees."

Learn more and purchase at ***nboa.org/financialgovernance.***

equity above and beyond the amount that they've paid in principal and interest. In lean times, however, debt is an unforgiving task master.

What percent is your annual debt service compared to your total non-campaign revenue? If you owe $1 million in principal and interest and your total revenue is $10 million, then your debt service to revenue ratio is 10%. One tenth of what you earn goes to pay for past borrowing. That is a fairly sustainable debt load. If 65% of revenue goes to salaries and 10% goes to debt, the school still has 25% of revenue for operations, supplies, etc.

Give yourself a +1 for every percent your debt service is less than 10% of revenue or a -1 for every percent your debt service is more than 10% of revenue.

- **Stable Leadership**

  Lengthy head of school tenure is no guarantee that the school can respond to disruptive market forces, but churn in the head's office is a clear sign of instability and poor governance. A key board of trustees responsibility is to hire and support the head of school. Mature boards grounded by a consistent mission take this responsibility seriously and work to understand the issues the head is facing. This partnership generally leads to successful, long-term headships.

  Personality-driven boards that change focus with the election of every slate of officers may have a hard time valuing the head "the last board" hired. Business leaders on boards, if they don't take the time to understand how schools operate, inaccurately translate management concepts and think that simply "bringing in new management" will solve every problem. That process generally just causes chaos in schools.

  In the past ten years, how many people have held the title head or interim head at your school? Score a +2 if the number is one person, +1 if the number is two, 0 if the number is three (generally two heads with an interim in between), and a -5 for each number above three. For example, if you've had five heads/interims in the past decade, you score a -10 and you likely have a dysfunctional board.

The shift to online learning has also revealed some schools to be apparently beautiful wedding cakes, made up of mostly phony layers — frosted tiers of plastic foam — with a little cake strategically placed. These hollow schools are in for a world of hurt.

Add up your scores for conservative investment management, debt service/revenue, and stable leadership. A positive score indicates strong bulwarks against disruption, whereas a negative score points out weaker fortifications against challenges from the outside environment.

How to use it: The bulwark score can provide a distilled single metric to compare the current year with past years and track directionality of the school's operational fortifications. Are they getting stronger or weakening? The score can also provide a benign quantitative measurement that tracks the impact of trustee decisions on investment policy, debt and head tenure, providing the opportunity for discussion in an analytical, non-emotional manner. There is no "right" bulwark score. The key thing is managing the underlying components to build stronger fortifications during uncertain times.

Cake-to-Frosting Ratio™

This is a concept I developed for LearnCollab. For decades many heads and boards never met a program they didn't like. Athletic team offerings expanded and extracurricular programs and trips ballooned. These often drove facilities expansion with new fields and pools, fancy theaters, robotics labs and climbing walls. Like the sweet confectioner's frosting that decorates a cake, these items became strong selling features that helped independent schools standout from public and charter school competitors and also the weapon of choice to joust for superiority among other independent schools. Most of us knew that school was about core academics — the cake — and made sure that learning and teaching were top-notch, but some schools got carried away with the frosting; sports teams and extracurriculars became their value proposition.

When schools were required to shift to remote learning, they lost most of their frosting. Sports seasons were delayed, theaters stood empty, and nobody was putting their child on a plane for a fancy trip. Everything became about the cake. How skilled are the teachers at engaging students online? Has the school invested in professional development and instructional technology to flip classrooms and deliver 21st-century learning in person and online? The schools that are mostly cake have fared better than those who went nuts with the frosting. The shift to online learning has also revealed some schools to be apparently beautiful wedding cakes, made up of mostly phony layers — frosted tiers of plastic foam — with a little cake strategically placed. These hollow schools are in for a world of hurt.

How to measure the cake-to-frosting ratio? Here are two ways:

- **Follow the money.** What percentage of your faculty compensation supports work outside the core academic program? This is difficult to calculate because many teachers have multiple roles, which could include teaching two sections of English and directing the spring musical or teaching math and coaching lacrosse. Make a spreadsheet of all academic employees and for each ask, "What percentage of their job have they been able to do in a 100% online environment?" See the example at right.

In this over-simplified example, about 60% of the school's faculty salary spending was for cake — core academic program that was delivered remotely — leaving an estimated 40% that was frosting.

It's important to note that we want frosting! Nobody is advocating for a rectangular pan of dry cake, but we need to know exactly how much of our expense spending is being converted into delivered value.

- **Also consider campus facilities as measured by debt service and maintenance expense.** This requires as much art as science because you have to make a call on what percentage of the total campus serves the core academic mission versus extracurricular and auxiliary programs. Once you have that percentage in mind, add up the total of the campus maintenance and operations budget along with the annual cash debt service related to bonds and mortgage principal and interest payments. Multiply this total dollar spend related to the physical plant by the percent of the campus dedicated to core academics and you'll have a facilities cake-to-frosting ratio.

  Take, for example, a classic urban day school in the mid-Atlantic. The school occupies a six-story building with a rooftop athletic field and a gym and pool in the basement. I'd classify 90% of the building as core academic, less the maintenance and operations costs related to maintaining and operating the athletic and performance facilities.

  Compare that to another mid-Atlantic boarding school that occupies a 100-acre bucolic campus. Only about half of the aging buildings really serve academic purposes. Mowing the open fields alone requires a full-time staff and equipment that accounts for a six-figure budget line item. It's harder to draw a clear cake/frosting line in the boarding environment, but even being generous this school's facility spend is likely 70% frosting.

Employee	% Delivered Online	Full Salary	Salary Allocation to Online Productivity
Chemistry Teacher	100%	$ 80,000	$ 80,000
English Teacher/Musical Director	60%	$ 65,000	$ 39,000
Lower School Assistant	10%	$ 30,000	$ 3,000
Coach/Human Development Teacher	20%	$ 45,000	$ 9,000
	Totals	**$ 220,000**	**$ 131,000**
	Ratio	**0.60**	

I would clarify that this cake-to-frosting idea is most useful when considering conventional schools. A sports academy in Florida may be fine with 90% frosting as I have defined it. For that school, sports coaching is the cake. Their boarding school academic program is the frosting.

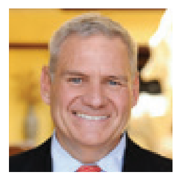
The key is to know what consumer problem you're solving. This is why I eschew traditional school strategic planning, where stakeholder groups talk internally about what they want to be. In place I recommend design thinking, a nonlinear, iterative process that schools use to understand students and families, challenge assumptions, redefine problems and create innovative solutions to prototype and test. This process can continually rebalance the school program to maintain the optimal cake-to-frosting ratio.

For more on design thinking and other approaches to change management, see "Game Changers" (January/February 2020) on ***NetAssets.org***.

There is no absolute cake-to-frosting ratio that demarcates a healthy school from a struggling school. Instead, the purpose of this measure is to stimulate conversation. What should the right ratio for your school be? Does your ratio for compensation align with your ratio for facilities?

Also, make no mistake that people love frosting. You'll get pushback introducing this conversation, but that's the point. The cake-to-frosting ratio forces people to remember the core purpose of the enterprise — teaching children to learn, getting them to internalize a love of learning, and helping them to develop skills to continue to learn for the rest of their life in a world where change is the only constant.

Managing a school in the multiverse is a daunting task. In the past, school leaders have found success by using tried and true tools that draw on historical data to interpret the present and project the future. Those tools remain valuable, especially for the projected future that looks like the past, but we also need new tools. We need to listen to the multiple things retention is telling us. We need to calculate the strength of our bulwark and improve those fortifications for multiple universe scenarios. And maybe most of all, we need to draw upon design thinking techniques to reassess the problem our school solves for families and make sure our solution to that problem becomes our cake. N



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