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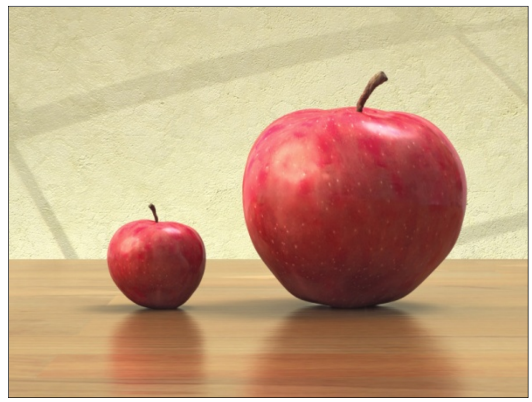
Economies & Diseconomies of Scale

Growing Your Charter Organization Intelligently

By Gasper Martinez, Director of Client Management and Development, EdTec Inc.

As charter schools successfully navigate the first few years of existence, some explore growth and expansion opportunities. For some charter schools, growth and expansion are part of the original plan, while for others plans for expansion emerge over time. There are many arguments for growth – increased reach and impact, expanded programming, better economic efficiencies and stability, to name a few. In this article, we'd like to focus on the financial side of growing and scaling, and explore both the economies and diseconomies of scale. It is a commonly held belief that growth and scale automatically equate to scalability and sustainability for charter schools. This assumption oversimplifies the challenges of growth and doesn't honor the synergistic convergence of key circumstances, thoughtful decisions, and intended outcomes. Moreover, it ignores the real danger of diseconomies of scale without intervention as organizations grow.



What does charter school growth look like?

Charter growth is often equated with the development of a charter management organization or CMO. However, growth towards financial sustainability can take many forms. For example:

- Enrollment and grade growth expansion within a single charter
- Expansion to other sites under the same charter
- Additional charters and replication
- Confederations or alliances between independent charter schools
- Takeovers, turnarounds, phase-ins, absorptions and mergers
- Informal and formal creation of administrative or central office functions to manage multiple charter schools
- Scale-ups and scale-outs

Ultimately, an organization's growth goals should not be informed by the type of growth, but rather, the *growth goals should inform the type of growth*. And if the goal is financial sustainability, it's also important to note that it's all relative and "success" on the financial sustainability front isn't necessarily limited to one particular type or form of growth. There are many financial success stories from organizations with varying objectives, competencies, scales and growth pace.

What should be consistent across charter school growth and expansion?

What is consistent across the spectrum of charter school organizations successfully exploring growth and expansion is the presence of a **formal strategy**. Successful organizations have created extensive growth plans that reflect mapped-out processes, timelines, financial assumptions and considerations. If you are considering growth as a means to financial sustainability, you must codify the assumptions and key performance indicators. Your growth strategy should have the flexibility to evolve, and it should be easily aligned with, but not constrained by, other organizational documents like your charter, mission, and broader strategic plan. The plan should incorporate business plan elements, and should clearly speak to cost, time, and resources deemed necessary. Though it can be a difficult and time-consuming exercise, the process of writing a strong and executable plan is essential to putting a successful growth strategy into action.

We also couldn't talk about financial considerations without considering perhaps one of the most fundamental economic drivers – ***demand****.* It is essential for you and your team to assess and quantify the true demand for additional educational offerings. Whether that demand is existing or speculative, organic or cultivated, **substantiate it**. Focus on a target range - not a specific number - that will meet your requirements. Focusing on a target range instead of a target number will allow for flexibility in decision making, and you won't run the risk of creating a strategy that is unsustainable due to a small variance in your enrollment , and more importantly, average daily membership (ADM). Moreover, if the existing school or organization is not currently at full capacity, focus on reaching capacity before "doubling down" and embarking on other growth endeavors. Although the desire to add schools to supplement or subsidize existing revenue streams may seem attractive, that calculus often doesn't account for the costs and obligations that come with more schools and growth: ***dis***economies of scale can undercut a charter school leader's plans.

Defining Economies and Diseconomies of Scale

An economy of scale in an educational context is the decline of per-pupil costs as a charter school grows, typically due to the more efficient use of fixed costs such as facilities or administrative overhead that are spread over a larger student base. This decrease in per-pupil cost is advantageous because of the potential resources or revenues freed up – costs go down per student, but the revenue per student stays the same, which can then be dedicated to other spending areas. Economies of scale can sometimes be confused with instances of revenues and expenses growing proportional to enrollment growth, where the per-pupil amounts for both revenues and expenses stay the same. While it is true that a charter school will then see more revenue in terms of total dollars, if expenses are also increasing proportionally, the gap between revenues and expenses does not necessarily change. It is when the gap between revenues and expenses widens - where revenue growth is outpacing expense growth - that the benefits of economies of scale emerge.

A diseconomy of scale, on the other hand, is triggered when charter school growth creates operational demands that add additional fixed costs and/or increase the per-pupil costs. While our anecdotal experience with the inefficient bureaucracies of larger organizations might suggest that diseconomies should be more common in larger charter school organizations, it turns out that diseconomies of scale aren't limited to any particular profile. Unexpected costs may trigger diseconomies more easily in single charters or newer charter organizations when enrollment is lower and the overall budget margins are smaller. Oftentimes, mid-size charter organizations can see difficulties as they navigate and transition from smaller to larger organizations. And, as intuition and our experiences would suggest, many larger charter organizations have also been observed to have, and have self-reported, their own challenges with scale, particularly as they increase their geographic footprint, centralize, and approach district size.[i]

As charter schools and charter organizations grow, several parts of the budget will naturally see diseconomies or potential for diseconomies unless carefully managed. For example, any school task managed by volunteers may require paid staff as the organization grows. Tasks such as lunch service, recess supervision, or data entry can be handled well by volunteers when a school is small, but once the school grows past 200 or 300 students, the management challenges with volunteers and volume of work may limit the ability of school to leverage volunteers. Health insurance is a common example of an expense that doesn't scale without some sort of intervention. School leadership often feels the indirect impact of diseconomies of scale, so that while the percentage of budget spending in school leadership may decrease with charter size, the school leadership's time and energy is now spread more thinly across a larger organization or set of organizations.

Benefits of economies of scale can potentially create an environment conducive for diseconomies. Charter schools are often looking for ways to drive per-pupil costs down in order to redeploy resources to supplemental program offerings. In that redeployment, those "new" costs are contingent upon that initial revenue/cost differential continuing, but may not necessarily lend themselves to being scaled back. For example, a charter school may decide to open a second school and subsequently leverage some of the increased resources from both schools to fund a new afterschool program. What happens if one of the charter schools, for whatever reason, isn't renewed? Certainly the remaining school will have to change how it spends its resources, but how feasible will it be to shut down an afterschool program that was funded through two schools, particularly once it's had time to become a valued part of the educational offering?

It is these kinds of considerations that charter school leaders and board members must keep in mind when thinking about growth and expansion. And while this is by no means exhaustive, the following are some of the main areas of consideration when exploring growth and expansion opportunities and their financial impact.

Upfront Resources

Understanding what resources you need upfront is critical, but that depends on determining the true cost of initial expansion efforts, which can be tricky. Most growth strategies often rely on some form of in-kind leveraging of existing resources, but the growth can actually divert said resources, as well as time and energy of existing personnel, and ultimately can have some more removed financial impact elsewhere in the organization. Mitigate this dissociation by quantifying the in-kind benefits that the new school or endeavor will receive. If personnel are spending time on the new endeavor, it's imperative to approximate the time spent and calculate pro-rata costs appropriately. If supplies or materials are likely to be consumed, consider creating a specific budget or line item within the existing school's budget for purchases or services associated with the new growth opportunity. If you are borrowing from one school for another school, associate the costs of borrowing with growth activity; some larger organizations artificially shoulder debt across a portfolio which may make their financial picture appear better than it truly is. Your thought exercise around estimating costs should consist of "if I didn't have an existing charter school to support these growth efforts, what would I have to otherwise pay for?"

Being realistic about the upfront resources available to your new growth endeavor is also critical. One of the common missteps groups contemplating growth or expansion make is the overestimation of what additional resources they can bring to bear for their new school. The federal Charter School Program Startup Grant is currently not a guaranteed resource for new and additional charter schools until Tennessee's application for additional funding is approved. Programs like the Charter School Growth Fund do provide additional resources, but they also come with ambitious growth requirements that may not ultimately fit into your strategy. The ability of an existing charter school to leverage fund balances and cash reserves for a new school may not be as easy with already limited resources being dedicated to an existing school or set of schools. The private and philanthropic resources that a number of the larger CMOs rely on may be an opportunity, but the ability to tap into these resources may be limited or outside of your organizational profile. For example, Rocketship Education previously targeted $3.75M in startup funding for 8 schools and 4,000 students to support activities prior to scaling; KIPP LA was targeting over $4M recently to support growth expansion.[ii] So while your new charter school will likely have some upfront resources to leverage, be conservative about how many additional dollars you can count on and ultimately what those resources will go to.

Ongoing Finances

With limited resources beyond public dollars available to charter schools, creating opportunities for sustainable growth will mean focusing on the cost side of the equation, specifically at the school-level. Building off the earlier discussion of philanthropic support, most of those resources going to the larger charter organizations aren't going to school-specific costs, but rather to subsidize administrative costs as they reach scale and subsidize their own administrative offices. These larger organizations are not just relying on pupils to scale and close this gap, but they are actually driving their costs down. Technology has been critical for curtailing costs for growing organizations, as well as strategic sourcing and procurement, which offer degrees of opportunity for organizations of all scales. Some element of outsourcing is likely necessary initially, particularly for smaller, growing organizations, but it comes with other tradeoffs for the cost savings and should be approached strategically. Group purchasing programs offered by organizations like the Tennessee Charter School Association may appear to have limited potential for return, but in aggregate and across many expense categories, can be significant for your bottom-line. A number of Tennessee charter schools have also had success working together and negotiating pricing with vendors for shared services.

Driving ongoing costs down not only requires good visibility into your own spending data, but also good benchmarking data to compare spending relative to peer organizations and contexts. That starts with sound financial accounting. Having generally accepted accounting policies and procedures in place is a compliance requirement for charter schools, but it also ensures better budgeting and greater ease of identifying savings opportunities. When charter schools account for their financial activity each year in a clear, consistent manner, they gain the ability to internally benchmark their own spending and efficacy.

They can then develop budgets that more thoughtfully approximate the costs associated with growth, but they can also point to opportunities for greater savings. For example, a charter school running its own food service program may notice after two years that the program is not scaling despite the increased volume of students. Without a diligent accounting approach to the program, the ability to even identify the diseconomy might not exist. Visibility into your own spending not only allows you to benchmark your school to itself, but also to peer organizations, what trends they have seen, and what costs you can expect to rise and fall as you grow based on their experiences with growth. For example, consultant expenses, when comparing standalones and CMOs, are fairly comparable at around 11-12% of total spending[iii], so the opportunity for turning that dial down as your organization profile horizontally expands would seem to be minimal.

Staffing

Staffing, as the largest part of a school's budget, can be the biggest opportunity for achieving economies of scale benefits, but it requires focused and diligent work to accomplish this goal. Based on a 2009-10 financial data analysis of several hundred charter schools, CMO staffing and benefits costs, not including central office staff, averaged around 56% of total spending vs. 64% at standalone schools.[iv] While larger organizations do show the ability to spend a smaller percentage of their budget on staffing, that is not a guaranteed outcome. Keep in mind, the percentage of spending on teachers does tend to increase over time due to retention and the popularity of "step and column" and other longevity compensation strategies. And with teachers representing the largest group of a school's staff spending, the opportunity to achieve economies of scale becomes more focused on other areas. In fact, most of the opportunity for staffing savings will come from supplemental instructional roles and support staff because there may be greater flexibility in terms of the level they are incorporated into the school setting. E.g., a school with 20 classes likely needs 20 teachers, but it may have flexibility how and where it deploys other roles and differentiate staff-to-student ratios in supplemental and support functions. Developing clear decision points for adding or subtracting staff based on a certain critical mass and what the tradeoffs will be programmatically and operationally in each situation is paramount. So while staff-to-student ratios may need to come down if a school wants to achieve economies of scale within staffing, not staffing sufficiently *cannot* be the approach. System investments and contracted services will need to be incorporated in some way to supplement less staff or augment their capacity. All the while, a growing charter organization will need to make sure it is still planning for the costs associated with developing a staff pipeline, recruitment, and development, but also be prepared to absorb the costs associated with staff burnout and attrition.

Facilities

Facilities are probably the biggest pain point for any single charter school, but organizational growth and additional charter schools can add another layer of complexity and headache. There are many different facility options and resources, and growing charter organizations must rely on a number of options that scaffold and complement each other. Growing charter organizations, both in Tennessee and a number of other states, are relying more on district facility options as a way to address their evolving space requirements. District spaces are usually an attractive option both in terms of costs and logistics, not only in that they tend to be built out and ready to move in, but also that there may be greater accommodation for a phased growth. Very few commercial leasing opportunities will be able to offer secured space for a school that is growing significantly over a few years without requiring some sort of price premium in the interim. There are, however, drawbacks associated with bringing these agreements to fruition, whether it is the extensive time of school leadership to negotiate an agreement or some additional expense that comes attached to the facility, such as a district janitorial service contract. Commercial leases can offer attractive initial terms, but they can escalate over time, pushing per-pupil costs past sustainability, particularly within a relatively flat funding environment. In all cases, commercial options should always be revisited on a single and multi-year basis to reassess their sustainability, and whether they are working for the portfolio of schools within the organization.

A number of charter organizations see new construction or renovations to an existing site as a means to greater financial stability, as well as a way to potentially save money on facilities in the long run. This approach, however, can present one of the greater potentials for financial difficulty. While a building may become an asset that the school can leverage down the line, it can create potential budget issues before it becomes a resource. Actual construction costs and tenant improvements needed for a proposed facility are rarely adequately accounted for in preliminary analyses. Should a school successfully navigate construction, it can still run into problems in future years, as these projects are financed on the projected financial performance, usually relying on an assumed increasing improvement each year. The limitation here is that while these projections might be done with the most conservative assumptions, they are still only educated guesses and subject to things out of the control of the charter school, e.g., a BEP funding rate that doesn't grow at the projected rate. New construction or renovation projects need to be approached with adequate contingencies built in to absorb any miss on your projections. It may feel counterintuitive to keeping costs down, but investment in expertise and resources on the front end will help you navigate that initial planning phase, and will often make the project more financially viable in the long run.

Parting Thoughts

Done thoughtfully and methodically, growth and expansion of your charter school or charter organization can yield meaningful financial benefits. There are a plethora of considerations, and the information covered here offers a good starting point for anyone considering charter growth, but is by no means exhaustive of what should go into a growth strategy. If you're interested in learning more or have specific questions or comments, feel free to email gasper@edtec.com.

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[i] Several white papers and studies have been done on the topic of economies and diseconomies of scale of CMOs. In Lake et al., *National Study of CMO Effectiveness,* 2010 and Lake et al., *Paying for Scale: Results of a Symposium on CMO Finance,* 2011, many of the larger CMOs self-reported that they had still yet to reach scale, well behind initial projections

[ii] Based on promotional materials on growth strategies from both organizations

[iii] *Measuring Up: Using and Understanding Benchmarks for Budgeting,* CCSA Conference 2012

[iv] *Measuring Up: Using and Understanding Benchmarks for Budgeting,* CCSA Conference 2012