



Applying Performance-Based Funding To Public Education

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EXECUTIVE SUMMARY

The purpose of performance-based funding (PBF) is to better align funding for schools with important student outcomes to incent ongoing, improved performance of schools individually and systemically. PBF provides an opportunity to make strategic investments in schools by focusing school funding on desired results. Rewarding schools for both achievement and improvement can promote innovation, competition, and student performance.

Different variations and models linking funding with educational outcomes are underway in various settings across U.S. public education. Outcome-based performance models developed for use with charter schools, and especially those that measure academic growth by individual students over time, offer useful components that can be applied to traditional public schools as well.

Aligning funding and performance is an incentive that should apply equally to all schools. Funding equity between charter and traditional public schools, data quality, achievement measurement and other essential issues should be considered in the context of PBF, an innovation that holds strong potential for improving student achievement across American public education.

This paper considers various aspects of performance-based funding, including school-based PBF, defining performance, and potential structures for applying PBF to school management organizations.

BACKGROUND

Allocating dollars based on educational results is gaining traction because of its potential to drive improved outcomes and cost efficiencies by aligning incentives. Performance-based funding (PBF) is increasingly being implemented in higher education and adult education (e.g., a recent effort is an adult education PBF model developed in Rhode Island¹), but so far there have only been a few experiments in K-12 schools. One such example is the Florida Virtual School, a state operated online school that provides school districts with online learning options for students in grades K-12. The Florida Virtual School has moved to a completely results-based funding model in which funding is

only provided for students who successfully complete courses. This approach takes the International Association for K-12 Online Learning definition of competency-based education² one step further. At least at the secondary level, once competency-based education is implemented, as it is in several states and districts, it is but a small step to then tie funding to mastery.

There have also been efforts by various governors and states to implement PBF statewide for all public schools going back to 1984³, and as recently as 2011 in Michigan⁴ and 2013 in Arizona.⁵ Arizona Governor Jan Brewer

¹ Adult Education Performance Based Funding Formula in Rhode Island, 2012; <http://www.ride.ri.gov/Portals/0/Uploads/Documents/Students-and-Families-Great-Schools/Educational-Programming/Adult-Education-Standards/AE-PBF-Description-3-16-12.pdf>.

² Patrick, S. and Sturgis, C. Necessary for Success: Building Mastery of World-Class Skills. A Competency Works Issue Brief, International Association for K-12 Online Learning, 2013; http://www.competencyworks.org/wp-content/uploads/2013/02/inacol_cw_issuebrief_building_mastery_final.pdf.

signed a bill this year to allocate over \$2 million for a PBF pilot program in a handful of districts and charter schools.⁶

What all these efforts have in common is the recognition that the current practice of funding schools based almost exclusively on attendance taken several times a year is a fundamentally flawed model that misaligns incentives, rewards sub-par performance, and diminishes the imperative for significant and sustained educational outcomes. School funding, as Michigan Governor Rick Snyder wrote in a 2011 special message to the Michigan legislature, “should be based upon academic growth and not just whether a student enrolls and sits at a desk.”⁷

PBF IN CONTEXT

The concept of PBF has variations that are employed at different structural levels within a school and a school system. For example, at the classroom level, merit pay for teachers is a performance-based funding mechanism that aligns incentives for teachers with outcomes for students. Increasingly implemented across the country, merit pay for teachers is beginning to yield substantial benefits for student achievement.⁸ Another model that applies the same merit pay PBF concept to a larger structural unit than the individual classroom is merit pay for groups of teachers (e.g., specific grade spans or subject areas).

At the school building level, there are a small number of merit pay PBF implementations that reward school administrators for performance. The administrator approach is notionally interesting, but may be more about a “superhero” concept of school improvement where an individual can single-handedly lift a school’s performance. While this is certainly possible, it is unlikely to be scalable. If teachers act in what they believe to be their own best interests before -- or instead of -- the group’s best interests, the overall result for the group may not be sufficient.

Likewise, group or team objectives may not align with broader organizational objectives. An approach that can be implemented widely and encompass all the staff-focused models is a PBF model for the whole school that addresses the challenges of incentivizing individuals or teams.

SCHOOL-BASED PBF

A school-based PBF model recognizes that a school as a structural unit needs to improve comprehensively, requiring a whole school effort, from administrators to individual teachers. A school-based PBF can incorporate teacher and administrator merit pay within its structure, and thus more effectively coordinate and align reform efforts. The key to implementing and scaling school-based PBF models is policy change; in education, policy change is perhaps the most disruptive innovation in a system that is exclusively regulated by governmental entities and almost entirely funded by local and state jurisdictions and the federal government.

A PBF model at the school building level raises many important issues: like merit pay for teachers, the questions of determining which outcomes and data are used in a performance-based system are critical to adequately and fairly define; the question of how much and which funding is in the PBF model is a fundamental consideration; other questions to resolve include whether PBF is applicable to all schools, only some types of schools, or subsets of certain types of schools (e.g., virtual charter schools). Determining, to the extent possible, the potential complications and consequences of implementing such a model is critical to putting processes and structures in place to facilitate operational execution, align incentives, and sustain student achievement.

³ Foster, Charles A.; Marquart, Deanna J. Performance-Based Funding in Public Schools. Sequoia Inst., Sacramento, CA. Department of Education, Washington, DC. Oct 84.

⁴ April 27, 2011: A Special Message from Governor Rick Snyder: Education Reform; http://www.michigan.gov/documents/snyder/SpecialMessageonEducationReform_351586_7.pdf.

⁵ State of Arizona Executive Budget Summary, FY 2014-15; <http://blogs.edweek.org/edweek/marketplacek12/Arizona%20Budget%20Summary%20Book%20FY14-FY15.pdf>.

⁶ “Gov. Brewer signs bill creating school performance plan,” by Bob Christie, AP, April 12, 2013; <http://azcapitoltimes.com/news/2013/04/12/az-gov-jan-brewer-signs-bill-creating-school-performance-plan/>.

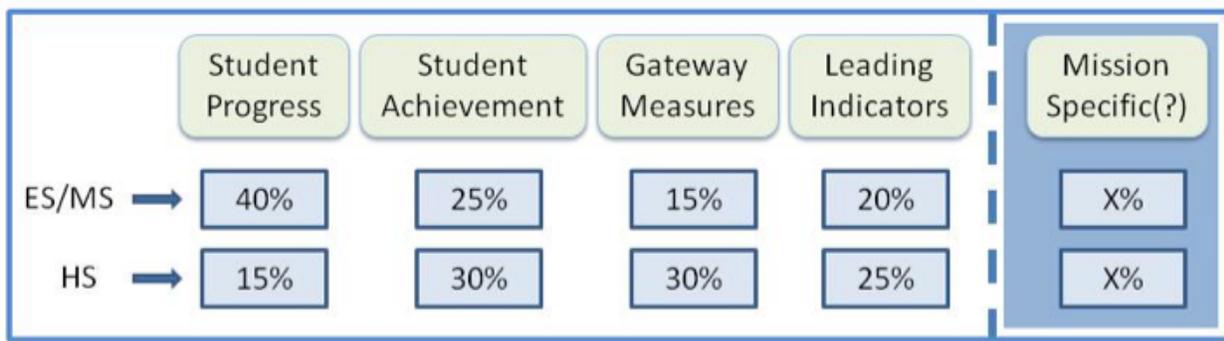
⁷ April 27, 2011 A Special Message from Governor Rick Snyder: Education Reform; http://www.michigan.gov/documents/snyder/SpecialMessageonEducationReform_351586_7.pdf.

⁸ Enhancing the Efficacy of Teacher Incentives through Loss Aversion: A Field Experiment, Roland G. Fryer, Jr, Steven D. Levitt, John List, Sally Sadoff, July 2012; <http://www.nber.org/papers/w18237>.

DEFINING PERFORMANCE

Regarding which outcomes should be in a school-based PBF model, the first step is to ensure metrics are definable, measurable, and attainable over an appropriate period of time. Two outcome-based performance models that have been developed to evaluate charter school performance, one by the District of Columbia Public Charter School Board (DCPCSB)⁹ and another by the National Association of Charter School Authorizers,¹⁰ provide great starting points for determining which metrics could be included in a PBF model.

The figure below is adapted from the DCPCSB Performance Management Framework¹¹ and shows the indicators used and weights assigned to each based on the grade configuration of the school: elementary / middle and high school:



By overlaying performance-based funding on this framework, a model could be designed whereby a school receives funding if it meets all -- or some of -- each indicator individually and collectively. For example, if an elementary school were to only make its goals for student progress, it could be eligible for 40 percent of the PBF available. Another school may meet all its goals for each indicator and therefore receive 100 percent of the PBF available. Alternatively, if a school makes one or more of the indicators, but not all, it might not be eligible for any PBF available. The specific metrics used for each indicator (and the indicators themselves), as well as the targets and weights for each are best determined locally and/or at the

state level, taking into account stakeholder input, to arrive at a system that has been thoroughly analyzed and vetted.

Another measurement model to consider is the one incorporated in the Arizona PBF legislation, which relies on the state’s A-F accountability system. Arizona’s school ratings assign a letter grade based on AIMS (the statewide assessment) results, reclassification of English Language Learners (ELLs), graduation rates, dropout rates and student academic growth. The letter grading scale consists of 200 points: 100 points each for academic outcome and improvement. The number of points earned determines the letter grade.¹²

Once metrics are identified, appropriate performance levels on those metrics need to be set to create the conditions under which sufficient performance will drive funding decisions. The Arizona legislation defined these performance targets as:

- Achievement: Schools receive funding by scoring enough points to receive an A, B or C. Funding is tied to the specific score, not the letter grade, to provide consistency in year-to-year funding as schools move up or down on the accountability scale.
- Improvement: Awarded by improving the score above the school’s current five-year high. There will be higher per-pupil improvement payments for schools that receive a D or F (so that those schools get increased funding if they improve their overall score but do not yet end up in the A, B or C category).¹³

⁹ Performance Management Framework (PMF) Guidelines and Technical Guide, District of Columbia Public Charter School Board, November 2011; http://pcsb-pmf.wikispaces.com/file/view/2010-2011%20PMF%20Guidelines%2011_11.pdf/270302742/2010-2011%20PMF%20Guidelines%2011_11.pdf.

¹⁰ National Association of Charter School Authorizers, Performance Framework and Guidance, 2012; http://www.qualitycharters.org/images/stories/pdfs/publications/Performance_Framework_Fall_2012_Draft.pdf.

¹¹ DCPCSB PMF Guidelines and Technical Guide.

¹² State of Arizona Executive Budget Summary, FY 2014-15.

¹³ Ibid.

A significant concern is ensuring that a PBF model does not provide any disincentive for schools to serve the students who need them most. The student progress metric used by the DCPCSB is one way to account for student performance growth, which acts as a counterweight to absolute performance and can account for students who are significantly behind. And, by looking at growth longitudinally, as the DCPCSB does, there is further protection against ignoring the students furthest behind or penalizing schools who serve these students. An alternative approach is the one taken by Arizona, whereby schools that are lower on the grading scale can get increased funding even if they are not yet in the A - C school grade range.

The recommendation here is that, as with nearly all teacher merit pay models, the vast majority of weight can and should be given to measurable, academic metrics and less weight to non-academic factors, while taking into account current outcomes and longitudinal results. In addition, consideration and potential weight could be given to mission-specific goals for charters that are focused on a particular student population or academic area. Such measures are of particular value for charter school authorizers seeking to evaluate schools' performance toward both academic and nonacademic goals.

A key issue that is discussed later is that the approach recommended above should apply to traditional public schools, charter schools and virtual schools, unless the virtual schools are only course providers like the Florida Virtual School.

Clearly, the availability and quality of data in measuring school performance to determine funding allocations is critically important. The DCPCSB, in its performance framework, addressed the data issue well and its recommendations can serve as a reference point when designing a PBF model.¹⁴

FUNDING CONSIDERATIONS

Once the metrics and performance levels have been determined, the next decision point is to decide which funding – and how much of it – will be available for the PBF implementation. The options here range from all of a school's funding, to a large or small portion of a school's funding, to non-cash models.

With the exception of virtual schools following the Florida Virtual School approach, no brick and mortar school could implement a PBF that involves all of a school's funding, or even a substantially large portion of funding, due to the inexorable demands of the school budget. A typical brick and mortar school budget includes two areas of spending: discretionary spending, also known as variable costs (such as textbooks, supplies, computers, technology, clubs, sports, field trips, repairing the buildings, and professional development of staff), and non-discretionary spending, also known as fixed costs (such as salaries / benefits, tuition, transportation, utilities, insurance, special education mandated costs, and mandated programs). Non-discretionary spending includes those costs over which a school has little control, but necessary to open and continuously operate a school. This spending consistently makes up 90 percent of the operating budget of a school every year. The remaining 10 percent in discretionary spending pays for everything else provided to students.

Any model that encompasses all, or significantly more than 10 percent of a brick and mortar school's funding in a PBF would put that school in serious jeopardy of not being able to operate either because there was not sufficient cash flow to cover ongoing costs or because budget planning would be so contingent as to render resource allocations unworkable. Virtual schools, which enjoy a different mix of fixed and variable costs, could likely have much more funding subject to a PBF implementation, but there are very few that could follow the model of the Florida Virtual School and only get reimbursed for completed courses; even virtual schools have fixed costs that need to be paid for by current cash flow.

Blended learning schools fall somewhere in between brick and mortar schools and virtual schools, but how close to either budgetary situation depends on factors unique to the school's design. Some highly-effective, innovative blended learning instructional models have been able to radically restructure, and reduce, previously fixed costs for personnel by leveraging technology investments.

Brick and mortar charter schools face a somewhat different dilemma than brick and mortar, traditional schools in that charter schools typically receive 15-25 percent less than the funding of a traditional school.¹⁵ Many are also required to shoulder facilities costs,

¹⁴ DCPCSB PMF Guidelines and Technical Guide.

¹⁵ National Conference of State Legislators, Charter School Finance, February 2011; <http://www.ncsl.org/documents/educ/charterschoolfinance.pdf>.

including rent or debt servicing for purchase of a viable facility. This charter school “penalty” can cause fixed costs to be higher in relation to the overall budget, although due to the unique operating environment of a charter, this may be neutralized or even slightly decreased compared to a traditional public school. Regardless, brick and mortar charters are in essentially the same situation as traditional schools, and putting all -- or a large percentage -- of a brick and mortar charter school budget in PBF would pose an existential crisis.

A further consideration is that federal funding would not likely be able to be incorporated into a PBF implementation. Federal special education could not be included; whether other federal funds for general education, specifically Title I funding, could be incorporated is less clear. If a PBF model were designed with federal Title I funds, it would require review and approval by the U.S. Department of Education. Other federal general education funds, such as Race to the Top funding, could also be a possibility, but again would require review and approval by the U.S. Department of Education.

For practical reasons, then, only state and/or local funds are likely to be included in a PBF model. Including state funding in a PBF would require state level policy changes to funding and distribution formulas. As mentioned previously, the only states to attempt this recently are Arizona and Michigan, with Arizona passing legislation to implement a PBF pilot in the 2013-14 school year. At the local level, changes to budget and planning by the school board would be necessary if only local dollars are in a PBF model. However, it seems more politically feasible that a state would implement PBF with state dollars rather than a local district voluntarily making such a bold change, with the possible exception of districts under mayoral control or a state restructuring authority, such as the Recovery School District in Louisiana.

The second recommendation is that only a relatively small percentage (10-15 percent maximum) be included in a PBF model for brick and mortar charter and traditional public schools. This could be deemed a “bonus” PBF model, where fixed operating costs are covered by traditional funding streams, but variable costs become subject to meeting performance targets on defined metrics. The percentage of funding in a PBF for blended learning

schools could be slightly higher, and for virtual schools, higher still, but in no scenario could it likely exceed 20-25 percent of funding before it would seriously impair the ability of the school to operate. Whether these are state or local dollars – or both – would be determined by local and state level political realities and funding availability. In most cases, it seems likely that a PBF model would be implemented at the state level with state funding.

While the recommendation is that only a small portion of funding be included in a PBF model, the amount will vary by political and policy decision-making. Both Michigan and Arizona have defined the amount of funding in their PBF models. In the Michigan proposal, every school would be potentially eligible for up to \$100 per pupil in PBF. Schools could qualify for three parts of the bonus: \$30 per pupil for mathematics in elementary and middle school; \$30 per pupil for reading in elementary and middle school; and \$40 per pupil for all tested subjects in high school. Schools could qualify for none, some, or all, of the bonus.¹⁶ In Arizona, the maximum per-pupil achievement payment, at full implementation of K-12 performance funding, would be \$500. In addition to achievement payments, the maximum per-pupil improvement payment, at full implementation of K-12 performance funding, would also be \$500, for a total of \$1,000 per student.¹⁷

Alternatives to using funding in a performance-based system include providing access to un/under-utilized school facilities or greater access to facility financing. Given the challenges charters typically have in getting a facility and the resources involved in securing a facility, providing a facility-focused performance-based model could be an alternative that solves some of the structural and political challenges inherent in putting funding into a performance-based model, while still positively impacting school resource allocation and incentive alignment.

¹⁶ Michigan Department of Education, Performance Based Funding Status; http://www.michigan.gov/mde/0,4615,7-140-6530_6605-288549--,00.html.

¹⁷ State of Arizona Executive Budget Summary, FY 2014-15.

PERFORMANCE-BASED FUNDING FOR CHARTER SCHOOL MANAGEMENT ORGANIZATIONS

It has become increasingly common for charter schools around the nation to contract with private organizations that provide educational management services. A charter school's governing board, which holds ultimate legal and fiduciary responsibility for the school, may elect to contract with either a non-profit or for-profit provider for a range of services, such as faculty recruitment and personnel decisions, business management and administrative services, reporting and compliance services, facilities management, and special education services.¹

A 2006 analysis published by the National Association of Charter School Authorizers noted that nearly 30 percent of charter schools receive substantial services from these third-party providers.² "When chosen well, school management organizations can be instrumental in helping charter schools fulfill their missions," notes the National Alliance for Public Charter Schools.³

The cost and structure of these contracts vary substantially depending on the range of services selected. In some cases, providers even work integrally with founding board members on the design of the school's application, with the intention that they will be responsible for the school's daily operation from day one.

Compensation arrangements and levels for these services vary widely, typically between 7 and 22 percent of a school's revenues, depending largely on the suite of services selected. Providers are incentivized to hold costs down, and get to keep what they do not spend. Interviews with charter school executives and authorizers indicated that 12 percent was perhaps the most commonly used level. Some contracts stipulate an additional 2.5-3.5 percent bonus for meeting performance targets linked to student achievement, enrollment, or third-party evaluation.⁴

Another kind of performance-based approach was utilized by Carpe Diem Indiana, a prominent blended-learning charter school instructional model, in contracting with the for-profit Carpe Diem Learning Systems to run its first school in the state for the 2012-13 school year. That contract defined Exemplary, Adequate and Inadequate Performance based on student performance on state-required annual academic assessments, as well as other indicators for organizational quality and budget management.⁵

"Exemplary performance," defined by student performance at the 85 percent proficiency level OR student growth levels in the top 20 percent in the state triggered an automatic contract renewal. "Inadequate performance" would have triggered contract termination without mutual consent, and "Adequate performance" would require mutual consent of contract terms for renewal.

Such a three-tiered arrangement holds considerable potential for its ability to link academic performance with compensation. For example, evaluating student performance annually or biannually could provide the basis for compensating a service provider with a portion of their fees. It is unlikely a service provider could put its entire fee at risk because of their need to cover ongoing costs associated with delivering the services; but a portion of a service provider's fee could be performance based. In particular, those services that are inextricably tied to student achievement might form the core of the performance based funding a service provider earns based on results.

Measuring academic growth by individual students over time holds particular value in considering a school's effectiveness. It also helps ensure that a school will not target recruiting of students away from those low performers in the greatest educational need to help ensure higher proficiency levels. Using student growth to trigger tiered performance bonuses for educational service providers is an approach well worth exploring.

¹ Charting a Clear Course, National Alliance for Public Charter Schools, October, 2005, p. 7.

² "Steadying the Three-Legged Stool: Authorizers, Charter Schools and Education Service Providers," Adam Lowe and Margaret Lin, National Association of Charter School Authorizers, 2006.

³ Charting a Clear Course, p. 1.

⁴ Charting a Clear Course, p. 58.

⁵ Management Agreement between Carpe Diem Learning Systems LLC and Carpe Diem Indiana, 2012.

PBF FOR ALL?

It is clear that PBF could apply to all schools; the question is whether it should only apply to certain types of public schools, such as virtual schools, charter schools, and/or virtual charter schools. Some charter school leaders (in particular, operators) are leery of PBF, as they first want funding equity with traditional public schools. As discussed previously, charter schools typically pay a penalty for being a charter school by receiving 15-25 percent less than traditional public schools. PBF could be viewed as putting additional revenue at risk for charters. However, the opposite outcome is equally, if not more likely: through PBF, a charter school could make up the funding shortfall it typically faces. After all, a number of recent studies, including the just released study by the Center for Research on Education Outcomes at Stanford University¹⁸ shows charters outperforming their public school peers in many, if not all areas, of academic performance. Notably, charter authorizers are generally open to the concept, and in at least one instance, actively working on a PBF model.

However, this is not to say that PBF should only apply to charters. In fact, the approaches taken in Michigan and Arizona would apply a PBF model to ALL public schools in the state – traditional and charter. Any consideration of equity dictates that all public schools should be funded the same and that PBF should apply equally to all schools. Given political realities, though, waiting for funding equity between traditional public schools and charters would indefinitely delay PBF models in all but a handful of state or local implementations and derail a very promising reform initiative. Instead of intertwining the two issues, PBF should be viewed as a way to achieve funding equity for charter schools, as an embodiment of the fundamental charter bargain of freedom provided in return for performance, and as a way to finally put traditional and public schools on equal footing for funding, even if only for a small portion of the overall funding available.

It could be argued that PBF would be easier to implement in virtual schools – particularly virtual charter schools. Setting aside the unique nature of schools like Florida Virtual School, which is a course provider, not a full service school like a traditional public school or public charter school, it would do a disservice to the scalable improvement potential of PBF and limit the long term impact of it

as a cross-cutting reform initiative if it were confined to virtual schools. Aligning funding and performance is an incentive that should apply equally to all schools.

CONCLUSION

PBF is a fundamental alignment of funding with performance. While the problem of misaligned incentives is a well researched topic in numerous fields from supply chain management, to labor compensation, to health care costs, to financial crises, it has not been a topic of deep research and reflection in education. As evidenced in other industries, misaligned incentives can have negative, and at times devastating, impacts. In education, the misalignment between funding and performance is at best a drag on the system and student performance, and at worst, a fundamental flaw that ensures our schools will never improve as widely and deeply as necessary for this country to be competitive internationally and to live up to our founding ideals of equality and opportunity.

Performance-based funding is a first step in aligning the incentives in the educational system and breaking the current funding structure that pumps money to all schools regardless of performance. In a similar fashion, merit pay for teachers is seeking to align teacher compensation with student performance and break the structural misalignment in labor compensation. While such efforts are an important reform, they do not address the organizational level misalignment still in place and hence may lack scale and/or transformative organizational impact. PBF can address the educational incentive misalignment and drive student performance higher.

If applied to all schools equally, with a portion of school funding, based on definable achievement metrics, PBF can be scaled and transformational. It is time to disrupt a flawed system and innovate an aligned system capable of dramatically improving student achievement.

¹⁸ Stanford University Center for Research on Educational Outcomes, National Charter School Study, 2013; <http://credo.stanford.edu/documents/NCSS%202013%20Final%20Draft.pdf>.

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