Summary of BPS Operational Review

April 2015

This memo sets out findings from the operational review of the Boston Public Schools (BPS) – a department of the City of Boston - conducted on behalf of Mayor Walsh and the City's CFO office, and with full collaboration of the District. The Mayor's charge for this operational review was clear – "Take a broad view, understand the system's strengths and weaknesses, and identify potential opportunities to improve our biggest and most important department. Find opportunities to free up resources, so that we can reinvest them in ways that will best serve the children of Boston."

With shrinking City and departmental budgets, and a new Superintendent taking the helm in summer 2015, this review was conducted between December 2014 and March 2015. (Updates were made as additional information was made available in Fall 2015. It is important to note that the central office observations and survey results pertain to the period before the incoming Superintendent began work, began building his team, and began establishing his vision within the system.) The interests of students have been the priority throughout the review, and all opportunities should be considered in that light. The goal is that potential cost reductions identified for consideration through this work will be reinvested to better serve *all* students in the System.

The review also resulted in a summary of insights drawn from interviews with members of City Hall and BPS staff, education experts, focus groups of parents, teachers and principals, and analyses of city, state and national data. The perspectives in this document were refined and prioritized through active involvement of the Steering Committee throughout the work, including Shaun Blugh, Turahn Dorsey, Melissa Dodd, Chris Giuliani, John McDonough, John Natoli and Ross Wilson.

The review began with an initial scan of the 25 areas initially identified by the Mayor's office. Based on these insights emerging from this scan, the Steering Committee, through facilitated workshops, then set the path forward, narrowing the focus to a set of priority areas for deeper investigation. This memo briefly shares findings of the broad scan, focusing on the specific findings of the identified, targeted areas. It also provides a brief overview of the potential path forward.

The ideas in this memo represent an exploration of potential options to improve student achievement, reduce district costs and drive operational efficiency. They are not intended to be formal recommendations, but rather to provide options to inform decision making

about opportunities facing BPS. If these options were to be pursued, additional targeted analyses would be required to confirm the specific opportunities, as well as public engagement about tradeoffs required and strategic evaluations to weigh costs and benefits of the different options.

OVERVIEW

During Tom Payzant's term as BPS superintendent, beginning in 1995, BPS became a leader among large, urban school districts in America as its performance dramatically improved. BPS was one of 20 systems in the world that had experienced significant and sustained improvements at scale as measured by international tests.¹

The operational review's analysis of BPS internal data found that since 2005, however, BPS has stagnated. While continued forward progress is evident, that progress has largely tracked with state and national trends. BPS' earlier trajectory towards closing the achievement gap and the gap between its performance and that of state and national districts has visibly stalled. In that time, BPS' student population continued to decline to 54,000 students in 2015, a 17% decrease over twenty years. This is an extension of a trend that has seen the BPS student population decline from nearly 100,000 in the early 1970s.

Financially, BPS is currently supported by a budget of around a billion dollars, which comprises over 35% of the City of Boston's budget². 51% of the BPS budget goes towards instructional variable costs, with another 17% going to benefits³.

Taking a per-pupil lens, when out-of-district school tuition dollars and grants are taken out of the picture, the average per pupil expenditure is \$17,455. Of this total, \$5,542 per pupil goes to central office, supports for schools that are funded centrally, benefits, and transportation. 20% of students qualify as Students with Disabilities (SWD) and 30% as English language learners (ELL). \$4,511 per pupil goes towards supporting those programs. \$3,351 per pupil is spent on the "foundation" of a school building, including

¹ McKinsey & Company, "How the World's Most Improved School Systems Keep Getting Better," 2010, http://mckinseyonsociety.com/how-the-worlds-most-improved-school-systems-keep-getting-better/

² City of Boston 2014 Summary Budget

³ BPS 2013 budget, Massachusetts Department of Elementary and Secondary Education

facilities, administrators and support. This leaves \$4,051, or 23% of the per pupil total, to be spent directly at the general education classroom level.⁴

The BPS of 2015 exhibits some areas of strength, while facing numerous structural challenges. The system has an impressive talent pipeline, tapping into the incredibly rich network of colleges and universities in the area, with exceptional employees in many roles, at all levels of the system. The system gets high marks internally and externally (from parents, teachers and principals) on the responsiveness and strategic acumen of the Community Engagement and Technology offices. Recent moves in Human Capital towards a "mutual consent" hiring process (where both teacher and principal must agree for a teacher to be placed in a given school) and leveraging stipends to allow principals to open-post positions have led to a stronger teaching pool and to principals enjoying more discretion and control over the direction of their schools.

At the same time, BPS' classification of SWD has grown to ~20% of the student population, a number that is very high nationally (average of 13.1%), and high even for Massachusetts (average of 17.8%), which has one of the highest rates in the nation.⁵ In FY15, this means that nearly a quarter of all budgeted funds are going to special education services.

The central office organization that supports the schools has a mix of strengths and opportunities. Outside of the top layer, which supports 13 direct-reports to the Superintendent, the organization is well balanced between management and employees. At the same time, surveys reveal that employees would like greater accountability across BPS, ways to trim the bureaucratic nature of the organization and better data tracking and management.

BPS has a set of structural challenges. With the right focus and strategies it can continue to unlock value for the system and students, while positioning a new BPS to drive student outcomes higher once again. Through a series of workshops with the Steering Committee, the Steering Committee prioritized a subset of topics for additional exploration ("deep dives"). While the performance of the system was generally strong across the initial range of areas explored, the committee focused the deeper dives on some of the most critical challenges for the system: the opportunity to consolidate schools, the opportunity to revisit and potentially accelerate special education reforms, and the opportunity to reorganize central office and non-teaching staff. Additionally, some focus was given to a fourth area: near-term opportunities to improve operations.

⁴ Boston Public Schools 2015 internal data

⁵ Massachusetts Department of Elementary and Secondary Education, 2013

1) OPPORTUNITY TO CONSOLIDATE SCHOOLS

BPS, through decades of student enrollment declines, without commensurate school footprint adjustments, is stretching its resources (and students) thinly across too many buildings. Initial estimates indicate that BPS is operating with over half of schools at under 68% utilization of physical capacity⁶, yielding a student to teacher ratio of 11.6:1, below peer systems. This spreading of resources prevents BPS from concentrating resources for students, while supporting base building operating costs of nearly \$2m a school.

The stretching of resources limits the resources that can be brought to bear for any one student, as so much is locked into physical buildings and support staff. At current enrollment and average building sizes, BPS could theoretically consolidate schools currently in its inventory. Practical considerations on class sizes, coverage across all parts of the city, current school performance and current building inventories, among many others, would all need to shape what the eventual number and specific schools could be in a right-sized BPS.

School consolidations could net ~\$1.7 - 2.2m per consolidated school in annual, runrate cost reductions that could be reinvested. The average cost of operating a school within BPS is \$4.6m⁷. This includes classroom staff costs, administrators and support staff, custodial support, building maintenance⁸ and utilities. Of the \$4.6m in costs, ~\$3.8m represents teacher costs, with the remaining \$800,000 in the other categories. Consolidating a typical school in the District would, on average, save \$1.7-2.2m per year, even assuming that significant migration of instructional staff into remaining schools would be required. These cost reductions would come from both operating and maintaining buildings from facilities and administrative costs as well as staff costs. Other systems that have undergone consolidation have seen typical per-building cost reductions of \$330-726K per school⁹. At the same time, these systems did not incorporate significant changes in staffing into these efforts, with only 2 of 6 systems seeing an

⁶ BPS Facilities Data, 2011

⁷ This represents a school build-up based on financial averages across BPS schools. In reality, every school is different given its particular size, staffing, and facilities. As such, the operating costs of any specific school will be higher or lower than this average depending on the school.

⁸ A review of current facilities is now in process to identify the current state of facilities across the system as a critical input into developing the future footprint of BPS.

⁹ Closing Public Schools in Philadelphia - Lessons from Six Urban Districts, the Philadelphia Research Initiative, PEW Charitable Trusts, October 19, 2011

increase in student:teacher ratios after the period of consolidations¹⁰. If BPS were to pursue both the staff and operational opportunity, it could potentially free up as much as \$1.7-2.2m annually per school consolidated to be reinvested elsewhere for students. Contemplating changes in the teaching force in the context of footprint reduction would require considering issues such as the impact on students, potential disproportionate impacts on different student populations, and any constraints that would make the outcome misaligned with the system's focus on teacher quality¹¹. Were BPS to not incorporate changes to teacher workforce into its plans, cost reductions would likely be closer to \$700K per school.¹²

Aligning the District footprint with student needs would concentrate resources for existing students. Currently, with stretched resources, BPS often struggles to provide basic teaching and support services to students in the system. Right-sizing the District would concentrate support services and potentially free up additional funds for investment in a reduced footprint of schools. It also offers the opportunity to shutter underperforming schools and provide the students in those schools with higher performing options. It also provides an opportunity to close buildings with substantial future capital facility needs to avoid future expenditures. Furthermore, it provides an opportunity to bring greater coherence to the system, aligning grade levels, feeder patterns, and supports more systematically and more consistently. This concentration would bring greater impact from the resources to more students by consolidating resources in fewer buildings.

School consolidation could yield a one-time benefit of ~\$4m per school consolidated. School consolidation could also yield a significant one-time benefit in building sales as

¹⁰ U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD)

¹¹ For example, a preliminary analysis that BPS has underway as of late October 2015 suggests that BPS is over 90% capacity when comparing current classrooms to agreed upon capacity limits. These limits may need to be reconsidered in the light of consolidation. Similarly, policies or agreements regarding changes to the teaching force may disproportionately affect newer teachers and not consider teacher effectiveness, both impacting the quality of instruction and the potential cost reduction. Were staffing changes to focus only on early tenure teachers, cost reductions would be ~75% of these estimates.

¹² These estimates are based on averages across the system. Should BPS choose to pursue this and designs the "right-sized" system, the specifics of which buildings will be affected will change the amount of resources freed up for reinvestment depending on factors such as the avoided future upgrades to buildings, the specific size, location, configuration, and current capacity vs. student population. A more focused BPS footprint will likely enable the district to direct resources more efficiently to all students and significantly reduce the real estate and facilities requiring ongoing upgrades and capital maintenance, potentially with substantial resources for investment accruing to the budget over time beyond the estimates included here from those avoided investment needs.

the current BPS schools are valued by the City at an average of ~\$4m¹³. Alternatively, the city may choose to repurpose the buildings to benefit the community in other ways while retaining flexibility over the long-term.

2) OPPORTUNITY TO REVISIT AND POTENTIALLY ACCELERATE SPECIAL EDUCATION REFORMS

BPS has one of the highest rates of classification of Students with Disabilities (SWD) in the nation, at 20% of students. This high number is reflective of a culture in Massachusetts and the District that has been built over a period of decades. While Massachusetts has the second-highest rate in the nation, BPS is in the top third of classifiers in the State. The current trajectory of phasing-in the inclusion model comes over a 12-year horizon and there is significant uncertainty around the long-term cost implications of the inclusion model BPS is advancing.

Moving SWD classifications in the District by a single percentage point could save ~\$5m. As BPS is well above the State average for classification, its high rate of classification presents both opportunities to improve outcomes for students as well as free up funds for investment. A harder look at currently classified students, as well as a greater central oversight function over school-based classification teams could prevent students who should not be classified from being classified, as well as enable the classification of students who are currently not being provided the services they may need. A closer analysis would be needed to determine whether a move closer to the Massachusetts average rate (16.5%) might be appropriate, given the specifics of BPS' student population. If such a move were appropriate, then it could potentially net ~\$15m in annual cost reductions 14, while keeping thousands of students in the general education classrooms in which they belong and which provide them with better outcomes. Analysis of BPS classification reveals wide ranging inconsistencies in classification by school, pointing to opportunities from standardization of the process.

BPS has a current opportunity to shift paraprofessional and related service providers to a contracted basis, freeing up ~\$15-20m^{15}. The BPS model of special education requires one paraprofessional in every inclusion classroom. BPS currently employs hundreds of paraprofessionals, at substantial cost. Contracting for these services could

¹³ The specific amount of funds freed up for reinvestment would depend on the specific schools consolidated.

¹⁴ BPS annual budget estimates, 2015

¹⁵ Switching providers of services would be subject to the consideration of any agreements currently in place and the associated decision-making processes

save as much as \$10m per year. Additionally, students currently benefit from services that could be procured at a reduced cost from outside providers, with no change in services. This could also provide as much as \$10m for reinvestment.

BPS' planned move towards inclusion to benefit students will impact over 10% of the system's budget. Deeper understanding of the cost implications of rolling out the current approach and consideration of alternative approaches is warranted.

As planned, the system-wide transition is planned to last 10 years. Beginning in SY14-15, BPS began moving towards an inclusion model of special education that phases-in classrooms by network, over a 13 year period. To achieve this phase-in, the District's special education budget will grow to as much as ~\$6m¹⁶ more annually than current budgets, as investments initially outpace cost reductions. A long-term phase in of this nature will naturally not impact the bulk of students who will graduate out in that time. There is opportunity to expedite the transition to inclusion to reach more students quickly, but this will likely require investment to be successful. Deciding to accelerate the transition should also thoughtfully consider the potential impacts (both positive and negative) on students. Further investigation is needed, but a target of 5 years would reach many more students, sooner. The core aspiration is to improve outcomes for BPS' Special Education students in line with research that supports the benefits of inclusion.¹⁷

The steady state costs of the planned model and associated financial implications warrant further exploration. Assumptions around the number of new General Education classrooms that will need to be created under Boston's model and the average number of inclusion students to be in a given inclusion classroom have a significant impact on whether the proposed approach will yield cost reductions, will break even, or will actually incur additional costs for the System. Under 2 potential scenarios, BPS could either see a cost increase of ~\$40m per year or a cost reduction of ~\$25m¹⁸. The range of these scenarios and the current lack of a specific financial plan regarding the rollout of inclusion has three key implications. First, the System will want to take a deeper and more detailed understanding of the costs inherent in the model that is currently being

¹⁶ BPS Office of Special Education, preliminary estimates

¹⁷ Review of Special Education in the Commonwealth of Massachusetts: A Synthesis Report," August 2014

¹⁸ For example, if BPS needs to open four new General Education classrooms for every 10 inclusion classrooms created and 2-3 students from substantially separate settings are incorporated into inclusion classrooms on average, the steady state cost to the system could be ~\$40m higher per year. Alternatively, if just two new General Education classrooms are needed for every 10 inclusion classrooms created and each inclusion room can incorporate 4-5 students from substantially separate settings, the system's costs will decrease by ~\$25m.

rolled out. This would include moving beyond high-level assumptions to do more specific school-by-school modeling and understanding to gain confidence in the financial projections.

Second, the System could consider other models for inclusion that other systems have found beneficial for their students and understand the potential benefits to BPS students and the associated costs. Models such as "partial co-teaching," "pull out support," or "double-time supplemental support" would likely be less costly for BPS. Emerging information informs rough estimates that suggest that cost reductions of up to \$50m in supporting the transition of substantially separate students into inclusion settings may be possible, and thus warrant further exploration.

Third, regardless of the inclusion model BPS selects (or continues to implement) to best serve students, it will be important to monitor implementation on an ongoing basis to ensure fidelity, to maintain an understanding of the evolving financial implications, and to make adjustments as needed.

BPS is undertaking an important transition towards inclusion which holds promise for students. More attention is needed to the specific model and long-term cost of that model to allocate resources most effectively. (Since the new Superintendent has joined the system, BPS has launched an internal audit of Special Education with the aim of improving outcomes students through improved practices and greater effectiveness.) Across Special Education more broadly, finding opportunities to better serve students and free up resources will allow for greater investment in new innovations. For example, BPS could leverage a freed up facility to develop a high-quality school capable of delivering Special Education services that currently require students to be placed outside of the district. One could even imagine this school drawing on the local expertise from the various universities and hospitals in the city and attracting students from other systems into the city.

3) OPPORTUNITY TO REORGANIZE CENTRAL OFFICE AND NON-TEACHING STAFF

BPS' central office is in-line with typical spans of management, with a ratio of direct reports at each level of the organization that varies between 2.5 and 5.6²⁰. The size of the organization, however, could be trimmed, when looked at from the number of students

 $^{^{19}}$ District Management Council, South Orange and Maplewood School District, Special Education Opportunities Review, January 4, 2012

²⁰ BPS Org. Charts

the system supports. At the same time, culture and goal alignment within the District were lacking from the top when this review was conducted in early 2015.

Goal alignment within departments was strong, but there was no consensus on what the District's goals were in early 2015. At the department level, Values and Alignment surveys conducted as part of this review reveal an impressive level of alignment around department goals. However, Department goals and District-wide goals were rarely connected²¹. Additionally, focus groups with parents, teachers and principals further underscored the lack of coherent direction being provided from the top. Part of the trouble here is that District goals were not clearly identified and pushed out to the District. In this vacuum, individual departments were filling the void, creating robust sets of goals. However, these goals were created in isolation and do not tie to a set of coherent department-wide goals, and do not roll-up to a strategic vision.

While every department collects data, few are collecting meaningful data and using it to inform decision-making and strategy. Some departments (e.g., IT and transportation) are highlighted as effective in collecting data on performance. However, data is rarely used in the central office to make decisions or manage performance of the system²². Surveys conducted in early 2015 revealed that nearly half of BPS employees would value greater accountability in the central office. There is a large opportunity for better data collection and the better integration of this data into decision-making processes. Better use of data in this instance has the potential to drive better outcomes at lower cost.

Across the System, Boston has a higher proportion of non-teaching staff to students than peers. Boston supports a ratio of 14.5 students per non-teaching staff member vs. a peer average of 17.3.²³ Similarly, even as enrollment has declined between 2009-10 and 2014-15 by 2%, the overall number of staff (including teachers) has increased by 7%²⁴. Both of these facts indicate an opportunity for the System to understand the benefits to students of the non-teaching staff ratio, and consider options for bringing these ratios

²¹ Interviews with BPS leadership and management

²² Interviews across BPS departments

²³ US Department of Education, 2011, Boston Public Schools Facts at a Glance 2013-2014

²⁴ BPS Human Resources Data, January 2015

more in line with peers and historical BPS ratios. The estimated \$25-30m cost reduction accounts for partially closing the student:staff ratio in comparison with peers.²⁵

4) OPPORTUNITIES TO IMPROVE OPERATIONS

In addition to the themes detailed above, the review identified several other areas within BPS where immediate attention could drive operational efficiencies and cost reduction.

Reviewing transportation costs across BPS could net ~\$6-11m. BPS spent \$113m in 2014 on transportation, roughly a tenth of the district's budget. BPS has made a number of advances in transportation, leveraging a computer-based routing system and working with charter schools to synchronize bell times to improve route efficiency. At the same time, there are a number of indicators of potential additional opportunity. For example, 59% of riders have walks to their bus stops of under 0.25 miles, 20% of bus routes transport just 3% of students (contingent on requirements in the IEP for door-to-door transport), 11% of the budget is spent on transporting Special Education students outside of the City²⁶, and recent success in extending the policy of using public transportation to include 8th graders could be extended to 7th graders. Based on analyses conducted on BPS data, benchmarks vs. other systems, and on changes other systems have made, transportation could be expected to yield at least 5-10% savings, though specific levers will depend on deeper analysis in the Boston context.

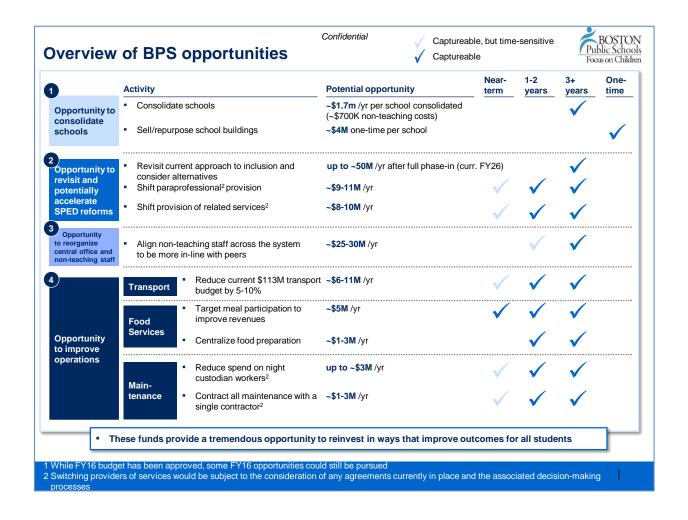
District school maintenance could be consolidated with one contractor, saving ~\$2-6m in annual maintenance costs²⁷. The District currently relies on hundreds of contractors who are engaged to fix various problems (e.g., broken toilets). Contracts are not in place for preventative work and contractors are not incentivized to perform good, timely work. Contracting out all maintenance work to a single contractor would align incentives around preventative maintenance and could net savings of \$1-3m on a \$22m maintenance budget, while one blanket contract would allow performance incentives around timeliness and quality. Additionally, night custodian work could be consolidated into one contractor at an annual savings of \$1-3m.

²⁵ While opportunities were evaluated independently, the gap to peers in non-teaching staff will likely not be fully closed even if all opportunities are pursued.

²⁶ BPS Financial Data 2014

²⁷ Switching providers of services would be subject to the consideration of any agreements currently in place and the associated decision-making processes

An investment in central kitchens could capture ~\$1-3m in annual savings through more centrally prepared meals. The BPS food contract currently costs more, on a per student basis, than centrally prepared meals. BPS centrally prepared meals also perform better in student taste tests than the contractor-provided meals. A move to more centrally prepared meals, if done at the same ratios as today, could net \$1-3m in annual savings. To capture this opportunity, an investment in central cafeterias would need to be made up front to build the capacity.



POTENTIAL NEXT STEPS

The Mayor's office and the new BPS Superintendent will have an opportunity to consider fundamental changes and improvements to the BPS system. BPS has improved since the early 1990s but has stagnated recently²⁸. A renewed sense of focus and purpose, as well as a clear vision and direction for the District, can potentially drive real improvements for Boston's children and the City as a whole. However, a set of decisions would need to be made to pursue some of these opportunities:

1) Opportunity to consolidate schools

a. Convene with new Superintendent to debate consolidation program and seek agreement to in principle pursue. Given calendar constraints, strategic decisions to address district overextension and discussions on the potential consolidation of schools in next few years would need to happen soon so that planning can begin as soon as possible. BPS could develop a robust stakeholder consultation plan, while in parallel build a strong team to perform detailed analytics on a school-by-school basis to design the right BPS for Boston's future. In addition, BPS will need to estimate and set aside funds to support the additional costs incurred during the transition to a better aligned footprint.

2) Opportunity to revisit and potentially accelerate special education reforms

- a. Decide on whether to use contracted paraprofessionals and specialists. This decision must be made soon for near-term capture²⁹, given the calendar and bargaining constraints.
- b. Develop a robust understanding of the financial implications and benefits to students of the model currently being rolled out across the system
- c. Reassess the pace and transition plans for SPED inclusion strategy and the specific model being used, potentially shortening time to capture benefits and reducing financial investment to get there. This should be weighed with potential District footprint, capital planning process and the ultimate effects on student services.
- d. Develop an approach to monitor inclusion implementation on an ongoing basis to ensure fidelity, to maintain an understanding of the evolving financial implications, and to make adjustments as needed
- e. Investigate variances in SPED classification to understand why BPS diverges from state and national rates and potentially re-assessing to ensure proper classification.

²⁸ Report on 2013 Trial Urban District Assessment (TUDA) National Assessment of Educational Progress (NAEP)

²⁹ While FY16 budget has been approved, some FY16 opportunities could still be pursued.

Decisions to align SPED rates will likely require cultural shifts in the District, including a better set of centralized checks to ensure only students truly in need of services are being classified and that students in need of services are consistently identified.

3) Opportunity to reorganize Central Office and non-teaching staff

- a. Design a fully aligned central office to support the new schools footprint. This includes designing a high-functioning central office organization and aligning it with future district support needs. This also includes developing and continuously improving efficient processes and ensuring that staff are equipped with the skills and capacity to be successful to take advantage of a better designed structure.
- b. Review the current non-teaching staff allocations and ratios to understand the benefits the current approaches are (or are not) having for students and engage with principals, as appropriate, to determine if there are possible reallocations of resources to serve students more effectively

4) Opportunities to improve operations

- a. Investigate potential transportation savings. Decisions in this area will have to be made with adequate community and school input.
- b. Reassess provision of custodial and maintenance services. This can capture savings immediately, but will require robust contract negotiations.
- c. Move all food services in-house if the capital planning process shows that the investments needed to do so can capture the expected savings

13 | Page