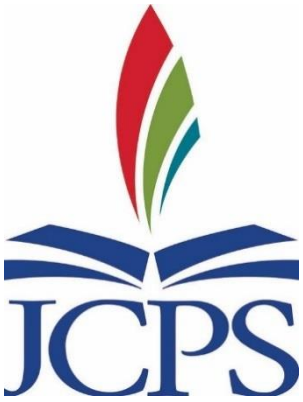


CYCLE-BASED BUDGETING AND CONTINUOUS IMPROVEMENT AT JEFFERSON COUNTY PUBLIC SCHOOLS: YEAR 2 REPORT

Bo Yan
August, 2017

CONTENTS

PREFACE

A district's budget is a value statement, with the budget allocation reflecting what the district values. A district's budget is also a focus statement, indicating institutional attention and effort during the time span of the focus, as well as a stewardship statement, showcasing how tax payers' money is responsibly used by cutting wasteful spending and diverting ineffective use of resources to new innovations and scientifically proven programs.

JCPS values excellence with equity. To pursue this mission, the Financial Planning Department has been collaborating with the Planning and Program Evaluation Department to implement a Continuous Improvement Model (CIM) to:

1. Make the value, focus, and stewardship statements more pronounced in the budgeting process and budget documents;
2. Link resources allocation with operational and outcome data to advance accountability, equity, and efficiency;
3. Use the budgeting process to guide planning, improve collaboration between departments, and achieve cohesion

Since 2014-15, we have successfully aligned $75.8 million investments ($55.4 million new spending and $20.4 million existing spending) with the district's strategic plan Vision 2020. In addition, a continuous improvement cycle was assigned to each of these CIM accounted investments, which sets the time for each investment to be reviewed for continued funding support based on their academic return on investment. As a result of this effort, we have set the conditions for transforming $75.8 million spending from entitlement to time-bound conditional commitment.

Whether those conditions will materialize will be tested with the first wave of programs up for review next year. Specifically, 105 programs totaling $33 million will reach the end of their cycle and be reviewed for continued funding support when we develop the 2018-19 budget. It is expected that some of them will have low or no academic return on investment (A-ROI). What we will do with the programs with low or no A-ROI will reflect the system's readiness and resolve to use tax payers' money both effectively and efficiently to achieve our vision of helping every student be prepared, empowered, and inspired to reach their full potential. The result will send a message to the system and community about the norm and expectations the district is setting for the future.

We have been fortunate to have a budget surplus in three consecutive years. We expect to have another surplus next year for the 2018-19 budget. However, if there is a budget crunch in the future, the implementation of the CIM has positioned the district well to make strategic cuts rather than cut across the board.

EXECUTIVE SUMMARY

Starting in the 2014-15 school year, Financial Planning Department and Planning & Program Evaluation Department collaborated to implement a Continuous Improvement Model[1] supported by a Cycle-based Budgeting approach[2]. The overarching goal is to strengthen the connection between planning, budgeting, and accountability so that the district can continuously improve by refining, retuning, or resetting strategies through reallocation of limited financial resources.

Over the past three years, the district has made a total of $55.4 million new investments to support 332 budget requests from schools and central office departments. Among the 30 strategies on Vision 2020, the three strategies that received the most new investments were "Eliminate achievement, learning, & opportunity gaps" ($16.4 million), "Provide equitable access" ($12.8 million), and "Personalize learning" ($9.8 million)[3]. New investments made in these three strategies were intended to target three areas for improvement: "Academic Achievement", "College & Career Readiness", and "School Climate".

The three strategies that received the least new investments were "Define high-performing teams", "Harness Innovations", and "Reduce, revise, & refine assessment", with each strategy receiving less than $100,000 new investments. The three areas that received the least attention for improvement were "Physical Health" ($2.3 million), "Technology" ($0.9 million), and "Arts" ($0.4 million)[4].

Of the $55.4 million new spending, most was invested in central-office-initiated programs despite the fact that more school-initiated budget requests were approved. Specifically, central-office-initiated budget requests constituted only 30.1% of the total 332 budget requests approved during the past three years. However, they were allocated with 71.9% of the total newly approved budget amount.

With that said, most of the new investment actually has been or will be spent in schools. Specifically, $43.0 million (77.6%) has been or will be spent in schools; $9.6 million (17.3%) has been or will be spent in the central office, and the remaining $2.7 million (4.9%) has been or will be shared between schools and the central office departments.

Of the $55.4 million new investment, $18.6 (33.6%) was approved to cover various operational costs (e.g., supplies, equipment, and contractual services) and $6.2 million (11.2%) was approved to cover other

[1] Continuous Improvement Model encompasses many aspects. At the core, however, it is supported by a Cycle-based Budgeting approach. Without the Cycle-based Budgeting process, it would have been very difficult, if not impossible, to implement the Continuous Improvement Model during the past three years. In this report, the two terms are used interchangeably.

[2] Cycle-based budgeting (CBB) is a new budgeting model developed to promote effective and efficient use of limited financial resources for achieving the district's mission. CBB has three core components: 1) alignment between investments and strategic priorities, 2) upfront expectations for outcomes and timeline, and 3) periodic review of the investments based on the timeline. More information about Cycle-based Budgeting approach can be found at https://www.jefferson.kyschools.us/sites/default/files/BUDGLessons%20learned9_2017BY.pdf

[3] Please note that, for each strategy, a portion of the new investments were also approved for other strategies because cost center heads were allowed to select up-to-three Vision 2020 strategies for alignment. Please refer to the section WHERE DID THE MONEY GO for details.

[4] Similarly, a portion of the new investments made in each target area were approved for other areas targeted for improvement because cost center heads were allowed to select more than one target area for improvement.

payroll expenses (e.g., extended time, workshop stipend), which left $30.6 million (55.2%) invested in staff by adding new positions or providing total or partial funding support for existing positions.

The $30.6 million human capital investment was approved to support 530 positions[5]. Specifically, $15.2 million (50.0%) was approved to support 230 teacher positions. When other instruction-related positions (Instructor, Instructional Assistant, and Bilingual Associate) are counted, the total investment increases to $22.7 million (74.2%).

The unit cost of the investments ranged between $0.02 per student to $15,597.92 per student, with a median of $219.20 per student. Of the total 332 approved budget requests, 234 (87.0%) had a unit cost lower than $1,000 per student and 200 (74.3%) had a unit cost lower than $500 per student.

The continuous improvement cycle for the 332 budget requests ranged between one year and five years. After implementing CIM for three years, we will have the first wave of 105 programs totaling $33.0 million for review next year when developing the 2018-19 budget. Specifically, their academic return on investment and whether they are aligned with the district's new priorities will be assessed for continued funding support.

The district faces two upcoming challenges when developing the 2018-19 budget. One is to prepare leaders of all levels for the review of 105 programs and tough decisions on programs with low or no academic return on investment, as well as for the consequences should some of those programs get discontinued. The other challenge calls for the board and district's senior leadership team to collaborate to set funding priorities before we open the budget request process.

In the long term, additional resources will be needed to meet the growing demand for support, development, and analytics as we apply the CIM to additional spending, both new and existing. In addition, more efforts need to be devoted to defining and communicating Vision 2020 to school and district leaders for better implementation. For example, as we further adopt and implement deeper learning, what kinds of programs and strategies are considered deeper learning and worthy of new investment?

In this report, we first briefly summarize the Cycle-based Budgeting process implemented in JCPS during the past three years. Next, three major improvements implemented in the 2017-18 budget season are highlighted. Then, a big picture of how the district has invested the growing revenue during the past three years is presented. Last, challenges for moving forward are discussed.

[5] Further analysis is needed to find out how many were new positions and how many were existing positions.

A BRIEF HISTORY

The effort of continuously improving the JCPS budgeting process can be traced back to 2005, when a formal budget request system was created. The system continued to evolve until 2014 when major changes were made to the budget request form and the system was migrated from paper-and-pencil to online. These changes streamlined the application and approval process. More important, they allowed the district to link new spending to Vision 2020 and track academic return on investment (A-ROI) from the new investments.

In 2016, the concepts of Cycle-based Budgeting and Continuous Improvement Model (CIM) were introduced. As a result, each newly approved budget request was assigned a continuous improvement cycle [6] and will be reviewed for continued funding support at the end of that cycle. Cycle-based Budgeting helps set the conditions for programs to continuously improve or be selectively abandoned so that the district re-gains the flexibility to invest in new innovations and initiatives.

The journey to improving budget process started in 2005 and a major milestone was achieved in 2016 when continuous improvement model and Cycle-based Budgeting were introduced.

We continued to improve the process by implementing three major changes this year: 1) resetting existing programs for success by rolling them into the Cycle-based Budgeting process; 2) making district initiatives competitive offerings; and 3) providing continued support to cost center heads[7] after the budget request approvals to help improve implementation. These changes are explained in more detail in the "MAJOR IMPROVEMENTS THIS YEAR" section.

We are on a steady pace to roll more existing spending items into the Cycle-based Budgeting process for continuous improvement while growing our capacity to manage the changes at the same time. Looking forward, we will have two challenges coming up when developing the 2018-19 budget next year. One is to review 105 programs approved since the 2015-16 budget totaling $33 million for continued funding support, which will be a test of the system we have built in the past three years and as well as the will of our leaders at all levels. The other requires the school board and district senior leadership team to collaborate to set funding priorities for the 2018-19 school year before opening the budget request process. The two challenges, what is needed from the leaders of all levels to overcome them, as well as how we believe the system will help leaders through the Cycle-based Budgeting design are discussed in the "CHALLENGES COMING UP" section.

[6] A continuous improvement cycle is the time-frame within which a program is implemented, monitored, and adjusted, which can span between one and multiple years depending on the scale, scope, and prospect of the program, degree of scrutiny needed, budget constraint, and some other factors.

[7] Cost center heads are school and district administrators who have a budget to manage and are authorized to submit budget requests.

JCPS BUDGET REQUEST AND APPROVAL PROCESS

The $1.5 billion 2016-17 budget of JCPS can be divided into four areas as shown in Figure 1 below[8]. When it comes to funds that schools receive for teaching and learning, most of them are from the Standardized and Flexible areas. The standardized area is shared by the central office departments and schools[9], and allocated to schools according to the School Allocation Standards and to central office departments based on the Org-chart[10]. The standardized allocations allow schools to perform basic operations and central office departments to provide various supports to schools. Anything above and beyond comes from the Flexible area, which is allocated to schools in the form of add-on programs or individual approved budget requests.

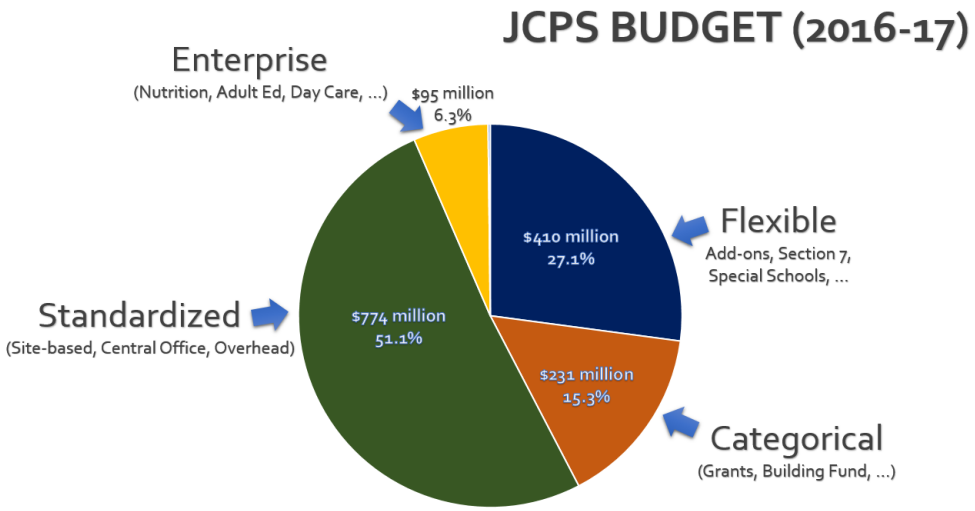


Figure 1 Four areas of the JCPS annual budget

The School Allocation Standards were formally adopted in 2009 and have remained relatively stable ever since[11]. Each year, most of the budget decisions have centered on the Flexible funds, which involves adopting new district initiatives (e.g., Goal Clarity Coaches, Bellarmine Literacy Project, etc.), discontinuing existing district programs (e.g., STOP, POP, TLCS[12]), as well as approving and declining new budget requests from schools and central office departments.

[8] This chart was used in previous presentations to the board and cabinet. To avoid confusion, this chart, instead of the 2017-18 budget, is used here again for illustration purpose.
[9] For the 2016-17 budget, specifically, $416 million of the standardized allocations went to schools, $182 went to the central office, and the remaining $176 million was overhead.
[10] Both the School Allocation Standards and Org-chart need approval from the board.
[11] No major change was made to the formula except adjustments in middle school administrative standards in 2011, addition of elementary assistant principals in 2013 (for elementary schools with over 400 students) and 2014 (extended to all elementary schools).
[12] STOP - Suspension/Truancy Off-site Program; POP - Positive Outreach Program; and TLCS - Teachers and Leaders Collaborating for Success.

For the past three years, our focus has been on the Flexible funding of the budget as we improve the Budget Request System established in 2005[13]. Since the 2014-15 budget, every new spending item needs to go through the following five-step process.

When an application is submitted in Step 1, the cost center head needs to: 1) demonstrate the budget request's alignment with Vision 2020, 2) define measureable goals, and 3) specify budget request and intended use, and 4) propose a timeline for achieving those goals (continuous improvement cycle). Next, this information is reviewed and approved or declined in each of the subsequent steps, until it is finally approved by the school board.

Once an application is approved, the budget request serves as a contract between the district and the application submitter who is also the owner of the approved program. With clear expectations set at the beginning and accountability demanded at the end of each program's continuous improvement cycle, limited financial resources can be reallocated based on academic return on investment (A-ROI), a single index number into which the information about the linkage between the three components is encapsulated (See APPENDIX IV for more detailed explanation and illustration).

In the past three years, 332 new budget requests totaling $55.4 million dollars were approved and funded through this process, with the continuous improvement cycle ranging between one and five years. As a result, we are able to show where every penny of that $55.4 million is spent in terms of Vision 2020 strategies based on budget requests submitted by cost center heads, which will be presented in the section "WHERE DID THE MONEY GO". More importantly, we transformed the $55.4 million new investment from new entitlement into time-bound[14], conditional[15] commitment.

[13] Currently, our main focus is still on further implementing and improving the process of how the Flexible funds are allocated. As that process becomes mature and well established, we will shift our attention to the standardized allocations. That said, some preliminary work is underway to explore the opportunities for improving the standardized allocations.
[14] Each program will be reviewed at the end of its continuous improvement cycle.
[15] Continued funding support is conditioned on A-ROI and the district's budget situation.

MAJOR IMPROVEMENTS THIS YEAR

This year, three major improvements were introduced into the budgeting process: 1) rolling existing programs into the continuous improvement model for resetting; 2) making one district initiative a competitive offering requiring school application; and 3) providing continued support following the budget request to help improve implementation. In this section, what each improvement entails and the resulting benefits are discussed.

RESETTING EXISTING PROGRAMS FOR SUCCESS

In the first two years of implementing the Cycle-based budgeting process, we predominantly focused on new spending ($6.8 million in 2015-16, $24.3 million in both 2016-17 and 2017-18). While these were important first-steps, combined, they only constitute 12.8% of the now $434 million Flexible spending ($410 million in 2016-17 plus $24.3 million approved for 2017-18). The $55.4 million new investments are time-bound and conditional, requiring periodical reviews, and could be repurposed as a result of low or no A-ROI. In contrast, the close to $379 million existing Flexible spending is still largely entitlement, in which the alignment with Vision 2020 is unclear and expectations and accountability are lacking.

As a logical next step, it is important to roll the existing Flexible spending into the new budgeting model. This year, we made the first attempt at this by rolling the following three existing programs into the Cycle-based Budgeting process for continuous improvement:

- Goal Clarity Coaches ($11.6 million)
- Behavior Coaches ($2.2 million)
- College and Career Teachers ($6.5 million)

Using the budget process as an opportunity, we managed to achieve three things with each of the three programs. First, an administrator was identified to take ownership. Second, the owner was able to realign the program with Vision 2020, set measurable goals, and propose time needed to achieve the goals. Third, a continuous improvement cycle was assigned to each program based on the proposed timeline so that the program can be reviewed for continued funding support at the end of that cycle. As a result, these three existing programs were turned into time-bound conditional investments that are aligned with the district's strategic plan, which set the conditions for the district to continuously improve the A-ROI of the annual $20.4[16] million dollars investment[17].

DISTRICT INITIATIVE AS COMPETITIVE OFFERING

Of the $410 Flexible spending in the district's budget (See Figure 1), $313 million (76.3%) is allocated in the form of district add-on programs such as Goal Clarity Coaches, Bellarmine Literacy Project, PBIS, and so on. Which schools would participate and receive the add-on allocation was usually decided by the

[16] 20.4 is slightly greater than the sum of 11.6, 6.5 and 2.2 due to rounding.

[17] JCPS has reset programs for realignment and adjustment in the past. For example, Behavior Coaches has been reset multiple times since it was launched. However, resetting in the past mainly involved change in leadership, but lacked the effort of setting measurable goals and a time-frame based on which A-ROI can be assessed for continued funding support.

central office based on certain criteria, sometimes regardless of whether the school personnel were interested or had the capacity and devotion to make the program a success in their school.

When a district program was forced upon a school that didn't have the buy-in or capacity to implement it with fidelity due to various reasons (e.g., there were already multiple school-initiated programs), the program usually did not receive the appropriate attention from the school leadership or support from the staff, and tended to produce poor results. This was not only a waste of resources for the district and a distraction to the school that was trying to improve through other efforts, but also a lost opportunity for schools that had the interest and capacity but were excluded from participation.

This year, we turned one district initiative (Bellarmine Literacy Project Expansion) into a competitive offering that required application from schools. Specifically, the program's owner developed success metrics and implementation parameters (attached in APPENDIX VI), which were entered into the Budget Request System and, more importantly, shared with the school principals and area superintendents. Next, schools that decided to participate submitted a budget request, understanding that: 1) approved funding came with expectations regarding implementation and outcomes; and 2) poor implementation and lack of success may lead to a loss of funding support.

This change yielded two positive results. First, instead of spending close to $1 million forcing the 28 remaining non-BLP schools to participate, the district will only spend one-third of that money on 10 schools that have the buy-ins to implement the program. As a result, more than $600,000 dollars were saved and spent on other urgent needs. Second, the 10 participating schools were communicated clearly about expectations on the implementation and outcomes as well as the consequences if the expectations are not met, which increased the likelihood that the program will be implemented as designed and ultimately benefit the students.

Not every district program should be made available to schools as competitive offerings. There are cases where it is necessary for the district central office to decide which schools should participate and the order of participation. What we achieved with the BLP Expansion this year gave the district another option for providing support and funding to schools. This option offered flexibility to schools by giving them choice to participate, but set expectations for participation. As a result, it not only saved the district money but also increased the likelihood of success of the program.

FOLLOW-UP SUPPORT TO STRENGTHEN IMPLEMENTATION

The budget process starts with a cost center head filling out a budget request form. The form documents alignment with Vision 2020, sets expectations (target outcomes and time needed to achieve them), and details budgetary needs. In addition, the form was also designed to serve as a logic model[18] to help cost center heads develop a theory of change and think through the critical aspects of implementing their program during the planning phase. The submitted budget requests provide a window for us to identify

[18] A logic model is a quintessential tool for planning by presenting a visual representation of how resources and activities are conceived to be connected to achieve expected outcomes under a certain context. To learn more, please visit the Program Development and Evaluation site of University of Wisconsin.

weaknesses and issues in cost center heads' plans, which might lead to problematic executions and poor results if not addressed before the programs are implemented.

Of the various issues found among the 162 budget requests approved for 2018-19, we focused on two this year and provided follow-up support with the related cost center heads to help address them. One was unreasonable case load (e.g., one teacher serving more than 300 students), which suggested lack of clarity or focus on which students would be targeted and served by the new investment. The other was lack of specificity on measurable target outcomes (e.g., improve student achievement or reduce suspension as target outcomes), which not only suggested lack of clear goals from the cost center heads but also made it difficult to monitor progress and evaluate success.

After the school board approved the new budget requests recommended by the administration, an algorithm was developed to comb through the approved requests to flag ones with either or both issues mentioned above and then automatically notify the related cost center heads via email about contacting the Planning and Program Evaluation Department staff to revise their budget request. Then, Planning and Program Evaluation Department staff worked one-on-one with 35 cost center heads to have the issues addressed in 44 approved 2018-19 budget requests.

WHERE DID THE MONEY GO

After implementing the continuous improvement model through the budgeting process, we have tied $55.4 million new investment from the increased revenue with Vision 2020. In this section, we present how this pot of new money has been invested to achieve the goals set by Vision 2020[19].

NEW INVESTMENTS IN VISION 2020 STRATEGIES

Figure 2 shows the distribution of the new investments in 2016-17 and 2017-18 by Vision 2020 strategy. For each bar, the dark blue portion represents the 2016-17 new investment, and light blue portion represents the 2017-18 new investment. Please note that, for each strategy, a portion of the new investment was also approved for other strategies because cost center heads were allowed to select up-to-three Vision 2020 strategies for alignment.

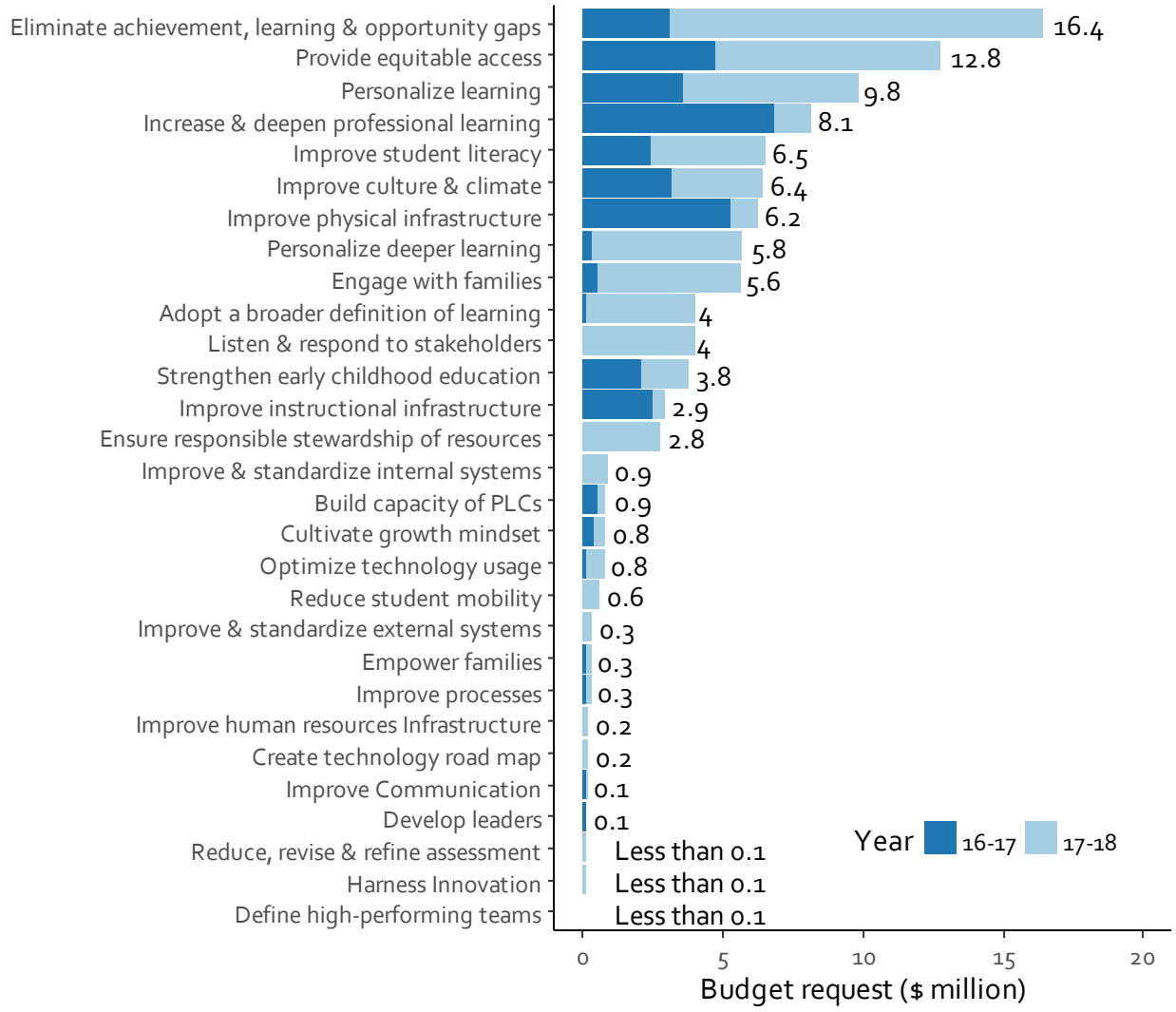


Figure 2 New investment in 2016-17 and 2017-18 by strategy

[19] APPENDIX I: 2017-18 NEW INVESTMENT reports how the $24.3 million new budget for 2017-18 was invested.

From Figure 2, the three strategies that received the most new investments were "Eliminate achievement, learning, & opportunity gaps", "Provide equitable access", and "Personalize learning". The three strategies that received the least new investments were "Define high-performing teams", "Harness Innovations", and "Reduce, revise, & refine assessment". It is worth noting that one strategy that did not receive any new investment during the past two years was "Provide customer-service training".

Figure 2 provides a picture of where the institutional attention and resources were distributed in 2016-17 and 2017-18 budgets, at least as far as the new investment is concerned. This chart will be useful next year when the district shall decide how the expected new revenue should be invested by providing a frame of reference for how each strategy has been prioritized in the 2016-17 and 2017-18 budgets. More importantly, we can start updating this chart with the A-ROI result for each strategy, which will provide another angle for setting funding priorities and making budget decisions.

VISION 2020 STRATEGIES AND TARGET AREAS

JCPS set the vision of "all students graduate prepared, empowered, and inspired to reach their full potential and contribute as thoughtful, responsible citizens of our diverse, shared world" in the strategic plan. To achieve the vision, the district has been investing the newly gained revenue in strategies identified in Vision 2020 to improve areas of strategic priority. In the 2017-18 DECISION section, we presented the distribution of the 2017-18 new investment by Vision 2020 strategy and target area, separately. In this subsection, we combine the two to report what strategies have been supported with the $55.4 million new investment to target what areas for improvement.

Figure 3[20] on next page shows the $55.4 million new investment by Vision 2020 strategy and target area. In the chart, each rectangle corresponds to a Vision 2020 strategy on the horizontal axis and a target area on the vertical axis. The scale of the color represents the amount of the investment. The darker the color, the larger the amount of the investment. If the intersection of a target area and Vision 2020 strategy is blank, it means that no money has been invested in that strategy for improving the corresponding area. For example, no money has been invested in the strategy of "Empower families" for improvement in the areas of "Academic Achievement", "School Climate", "Mental Health", and "Behavior/Discipline".

On the vertical axis, the target areas are displayed in descending order from top to bottom by the total amount of new investment. "Academic Achievement" was targeted for improvement with the largest amount of new investment ($47.5 million), followed by "College & Career Readiness" ($37.5 million) and "School Climate" ($14.7 million). In contrast, "Arts", "Technology", and "Physical Health" were targeted with the least amount of new investments. Please note that, because a budget request can target multiple areas for improvement, the total investment represented in each rectangle can also be spent to target other areas for improvement. With that said, the order does indicate, relatively, which areas have been the focus of improvement and funding.

[20] Two strategies are not included in this chart: "Ensure responsible stewardship of resources" and "Create technology road map". This is because the new investments employing these two strategies were from the Operations Division, which has a different for budget request and target area is not a field in that form.

On the horizontal axis, the Vision 2020 strategies are displayed in a descending order from left to right by the total amount of new investment. "Provide equitable access" received the largest new investment of $30.0 million and is followed by "Eliminate achievement, learning & opportunity gaps" ($25.8 million) and "Personalize learning" ($17.5 million). The three strategies that received the smallest investment were "Reduce, revise & refine assessment", "Define high-performing teams" and "Harness innovation".

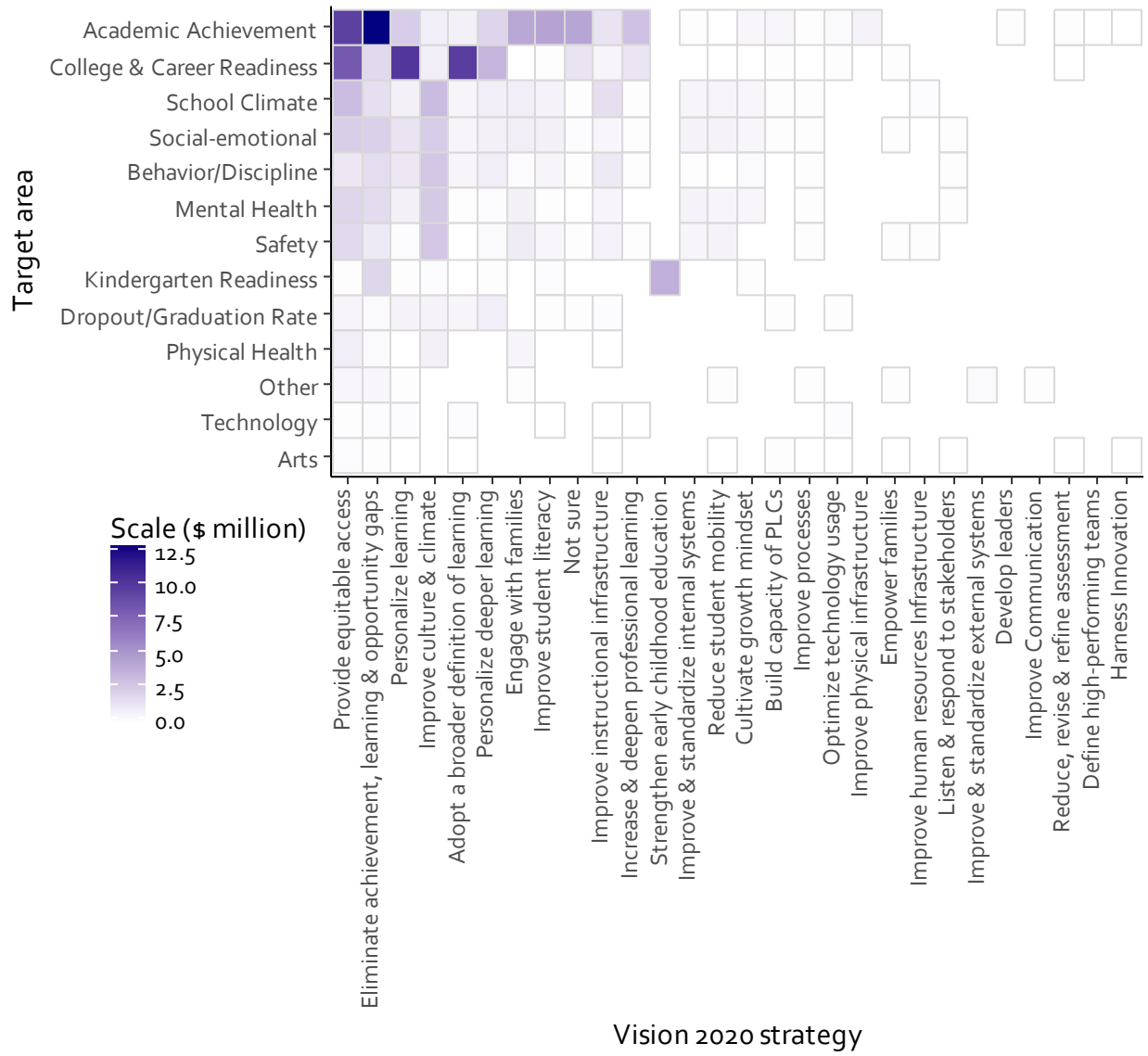


Figure 3 New investment by Vision 2020 strategy and target area[21]

Taken together, strategies that have received most attention and funding support, along with the corresponding areas targeted for improvement, were concentrated in the upper left corner of Figure 3. That is, as far as new investment is concerned, the district has focused on improving "Academic

[21] "Not sure" represents the new budget requests approved for 2015-16, which contained the information of alignment with the Strategic Plan 2015 focus areas.

Achievement", "College and Career Readiness" and "School Climate" via the strategies "Provide equitable access", "Eliminate achievement, learning & opportunity gaps" and "Personalize learning" in the recent three budgets.

Figure 3 also shows that some areas, such as "Academic Achievement" and "School Climate", have been targeted for improvement via many strategies, as indicated by many rectangles of moderate to dark purple corresponding to multiple strategies. In contrast, fewer strategies have been employed to target "Kindergarten Readiness", as indicated by only a few rectangles of moderate to dark purple corresponding to those strategies. From another angle, some strategies have been employed to target multiple areas for improvement (e.g., the first four strategies), while other strategies have been mainly employed to target one or two areas for improvement (e.g., "Increase & deepen professional learning" mainly targeting "Academic Achievement", "Strengthen early childhood education" targeting only "Kindergarten Readiness").

CONTINUOUS IMPROVEMENT CYCLE

In addition to connecting the new and some existing spending to the strategic plan, what the continuous improvement model has also accomplished is to set a time-frame, which we call a continuous improvement cycle, on a CIM-accounted recurrent budget item for review of A-ROI. During the continuous improvement cycle, funding for the budget item is secure, on condition that: 1) there is no budget situation that necessitates reduction or a major shift in spending, or 2) things are going in the right direction.

At the end of the continuous improvement cycle, the extent to which the goals set by the program owner are achieved and at what cost is assessed, which should be used to inform the district leaders of whether the program should be continued, expanded, downsized, phased out, or eliminated immediately. As a key component of the continuous improvement model, the establishment of a continuous improvement cycle for each new and existing program is essential for transforming the spending from entitlement into time-bound conditional commitment.

A continuous improvement cycle is established in two steps. First, cost center heads propose a time period needed to reach the goals they set for their program. Second, the proposed time period is either endorsed or overwritten by supervisors when they approve budget requests for the next level of approval by the extended cabinet. During the subsequent approval process, both the extended cabinet and school board can overwrite the time-frame endorsed or overwritten by the supervisors. Once a budget request is approved by the school board, the timeframe officially becomes the continuous improvement cycle for the spending item.

Of the $55.4 million new investment, $8.2 million was one-time investment and the remaining $47.2 million was recurrent expenditures. Together with the three existing programs totaling $20.4 million that were reset for success, we have established continuous improvement cycle for 303 expenditures totaling $67.6 million ($47.2 million new plus $20.4 million existing). Figure 4 shows the distribution of the $67.6 million CIM accounted budget by continuous improvement cycle, with the number on top of each bar

representing the total CIM accounted budget amount and the number inside the bar representing the number of CIM accounted budget items.

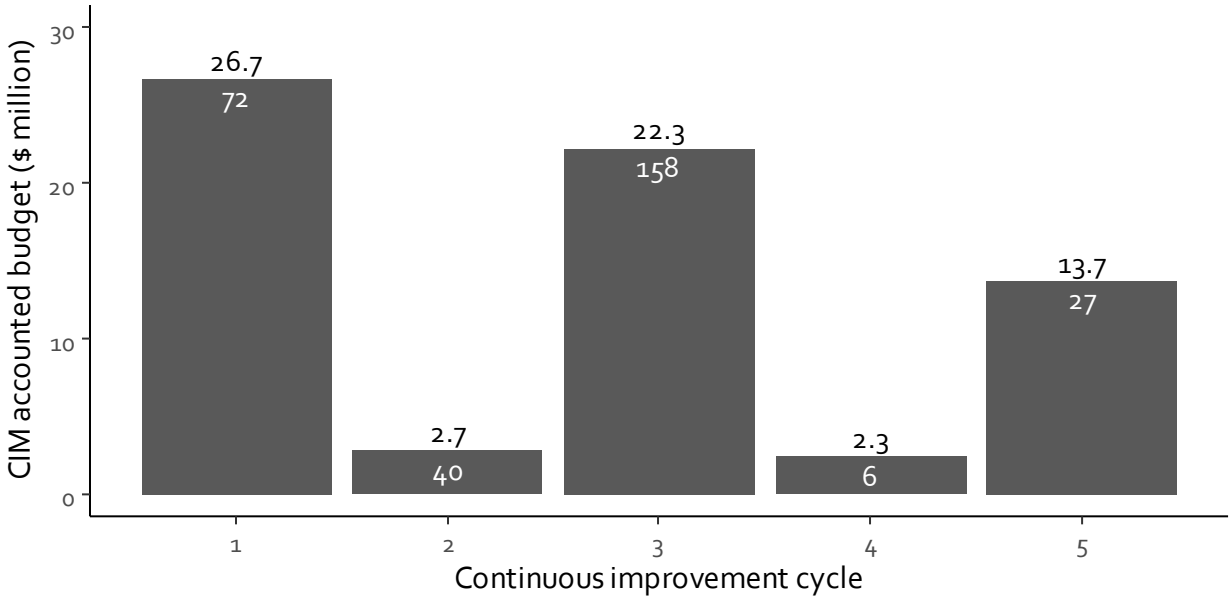


Figure 4 CIM accounted budget by continuous improvement cycle

According to Figure 4, the continuous improvement cycle ranged from one to five years. After implementing CIM for three years, we will have the first wave of programs for review next year when developing the 2018-19 budget. Specifically, 105 programs[22] totaling $33.0 million will be assessed on their A-ROI. It will be a large undertaking to prepare the A-ROI information on the 105 programs. But more importantly, it will be a big test of this system and the district's will and readiness to make some tough decisions. We will discuss both the technical and political challenges the system will face when making budget decisions about the 105 end-of-continuous-improvement-cycle programs in the CHALLENGES COMING UP section.

CENTRAL OFFICE VS. SCHOOLS

Of the $55.4 million new spending approved during the past three years, most was invested in central- office-initiated programs despite the fact that more school-initiated budget requests were approved. Specifically, central-office-initiated budget requests constituted only 30.1% of the total 332 budget requests approved during the past three years.

Of the $55.4 million total new investment, $43.0 million (77.6%) has been or will be spent in schools; $9.6 million (17.3%) has been or will be spent in the central office.

[22] Of the 105 programs, 6 should have been reviewed this year for the 2017-18 budget. Due to capacity issue, however, the review was not conducted with those programs this year. As a result, they will be lumped together with the other 2018-19 end-of-cycle programs and reviewed next year for the 2018-19 budget.

However, they were allocated with 71.9% of the total newly approved budget amount (See Table 1).

Initiated by	N	N.pct	Total	Total.pct
Central office	100	30.1%	39,780,494	71.9%
School	232	69.9%	15,577,017	28.1%

Table 1 Central-office-initiated vs. school-initiated investment

Figure 5 shows how the $39.8 million central-office-initiated new investment is distributed by division. All divisions had their initiatives approved for new investment except the Data Management, Planning and Evaluation Division. Together, Academic Services, and Operations Services were allocated with 87.4% of the new investment approved for the central-office-initiated programs.

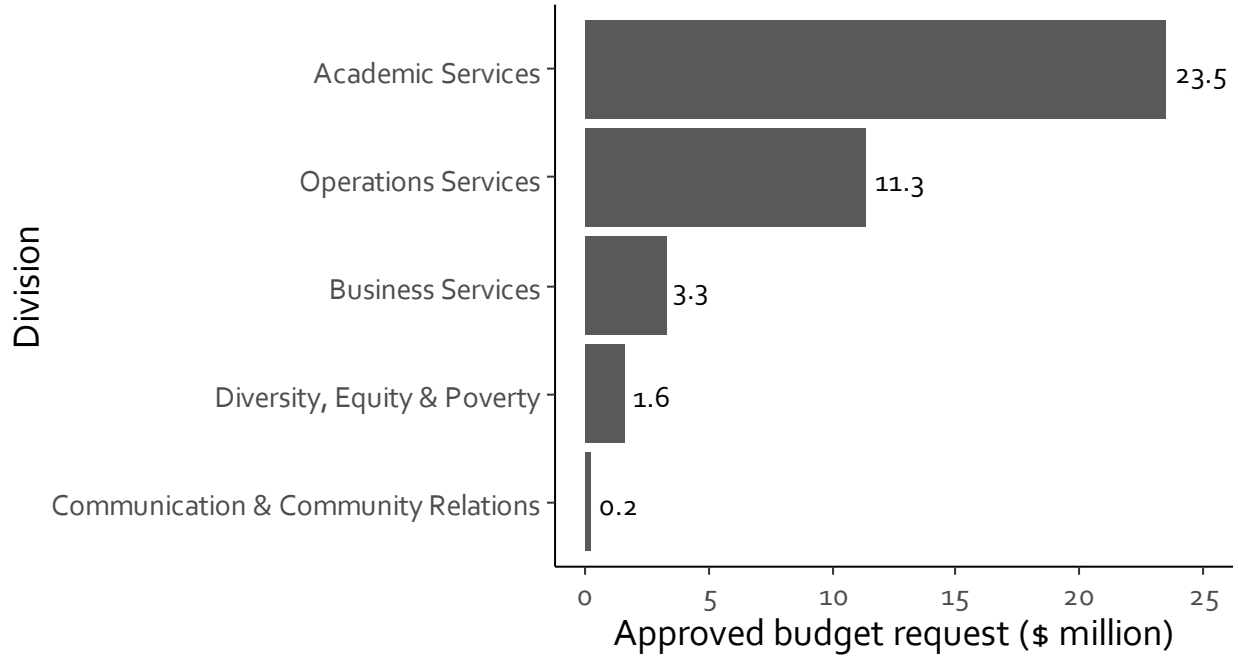


Figure 5 Distribution of approved new budget from 2015-16 to 2017-18 by division

The $11.2 million new budget approved for Operations Services was mainly invested in technology, infrastructure (e.g., facilities, transportation), and restructuring of the custodians and maintenance staff. Table 2 reports the 13 budget requests from Operations Services that were approved during the last three years.

Cost Center	Year	Title	Budget
AFIF	16-17	Annual Facility Improvement Fund	2,000,000
	17-18	Additional AFIF funding	500,000
Information Technology	15-16	KETs Matching	2,200,000
Operations Services	15-16	Junior Achievement	182,000
	17-18	Centralization of custodians/plant operators	1,500,037

Property Management and Security and Investigations	17-18	Preventative Maintenance Crews	1,109,257
	17-18	Security Enhancements for schools	400,000
Transportation Services	16-17	Increase Funding for New School Buses	2,000,000
	15-16	SCHOOL BUS REPLACEMENT PARTS	500,000
	16-17	School Bus Repair Parts	500,000
	16-17	Increase Funding for New Maintenance Trucks	200,000
	15-16	Compass Routing and GPS Application Annual Maintenance	79,650
	15-16	Liebert UPS Warranty for C. B. Young	1,417
		Total	11,172,361

Table 2 New budget approved for Operations Services

The new budget approved for Academic Services was mainly invested in ESL expansion, literacy initiatives, early childhood, student behaviors, and school restructuring. Table 3 shows the 25 budget requests approved for these areas.

Area	Year	Title	Budget	Center
ESL expansion	17-18	ESL Expansion	3,999,567	ESL
	16-17	ESL Department Budget Request Proposal	1,210,514	
	16-17	ESL Department Budget Request	775,995	
			5,986,076	
School restructuring	16-17	STUART 7th and 8th GRADE ACADEMY - Middle School Redesign	751,210	Achievement Region 3
	16-17	FROST 6th GRADE ACADEMY	664,541	
	16-17	OPERATIONAL COSTS - one-time only	313,305	
	16-17	OPERATIONAL BUDGET RECURRENT - Middle School redesign	280,355	
	16-17	COORDINATOR IV for Middle School	138,535	
	16-17	VALLEY HIGH SCHOOL - Middle School	137,218	
			2,285,164	
Student behaviors	16-17	IIRP Whole School Change 3 year Program	2,755,964	Achievement Region 5
	17-18	Elementary Behavior Support Sites	508,675	
	17-18	Behavior Coach	227,700	
	17-18	SCM Training Supplement - Districtwide	125,000	
	16-17	Request for Three PBIS District Leads (195 Day Resource Teachers)	231,489	Academic Support Services
			3,848,828	
Literacy	16-17	Bellarmine Literacy Project Teacher/Coach	1,951,350	Curriculum & Instruction
	15-16	JCPS Bellarmine Literacy Project - Phase II	200,000	

	17-18	Bellarmine Literacy Project	351,655	Academic Services Division
	17-18	Summer Literacy Boost	1,000,000	Title I
			3,503,005	
Early childhood	17-18	FSY 2017-2018 KERA State Funded Preschool Award Rescue	1,076,280	Early childhood
	16-17	Norton Commons - Eight New Preschool	975,128	
	16-17	Conversion of 5 Preschool Half Day Classrooms to Full Day Classrooms	642,254	
	17-18	Kindergarten Readiness Summer Camp	600,000	
	16-17	Conversion of 5 Preschool Half Day	269,244	
	16-17	Norton Commons - Eight New Preschool Classrooms - One Time Classroom Setup	183,276	
	17-18	BRIGANCE Early Entrance to Kindergarten Screenings	5,000	
			3,751,182	
		Total	19,374,255	

Table 3 Major areas targeted by new budget approved for Academic Services

It is important to point out that while more new money was approved for the central-office-initiated programs, most of the new investment actually has been or will be spent in schools. Of the $55.4 million total new investment, specifically, $43.0 million (77.6%) has been or will be spent in schools; $9.6 million (17.3%) has been or will be spent in the central office, and the remaining $2.7 million (4.9%) has been or will be shared between schools and the central office.

DISTRICT EXPANSION

Of the $55.4 million new investment made in the past three years, $18.6 (33.6%) was approved to cover various operational costs (e.g., supplies, equipment, and contractual services) and $6.2 million (11.2%) was approved to cover other payroll expenses (e.g., extended time, workshop stipend), which left $30.6 million (55.2%) invested in staff by adding new positions or providing total or partial funding support for existing positions[23].

Specifically, the $30.6 million human capital investment was approved to support 530 positions[24]. Figure 6 shows the distribution of the positions supported by the human capital investment approved from 2015-16 to 2017-18, with the number outside the bar indicating the total investment and the number

[23] There are several cases where partial or total funding support is needed for one or multiple existing positions at a cost center. One example is that the cost center might need partial funding support for an existing position because the grant used to provide partial support for the position is approaching its end and the cost center still wants to keep the position. Another example is that the cost center needs money for another position or school initiative of a higher priority but still wants to save the position if possible.

[24] Further analysis is needed to find out how many were new positions and how many were existing positions.

inside the bar indicating the quantity of that position. It is apparent that priority was given to instruction at the building level, with $15.2 million (50.0%) approved to support 230 teacher positions. When other instruction-related positions (Instructor, Instructional Assistant, and Bilingual Associate) are counted, the total investment increases to $22.7 million (74.2%).

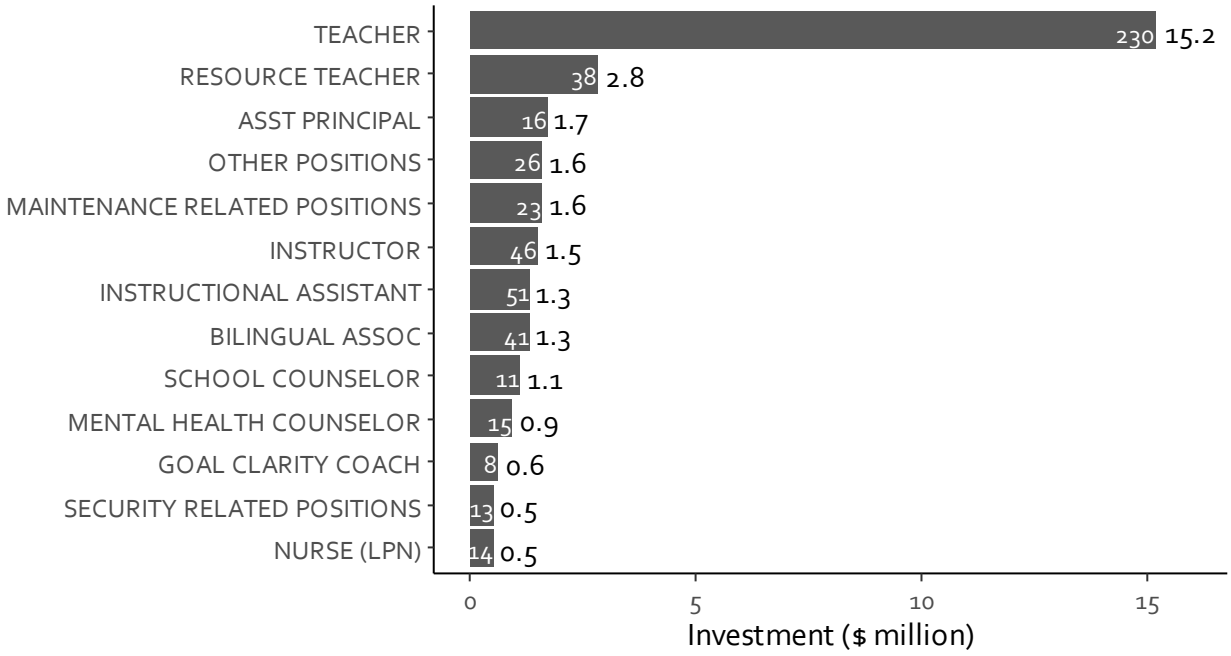


Figure 6 Distribution of the positions supported by new investment from 2015-16 to 2017-18

UNIT COST

In our effort to rigorously assess and review the investments of the past three years, one critical aspect to look at is the unit cost of each approved budget request, which was calculated by dividing the total approved budget amount by the size of the target population the program was intended to serve. Of the 332 approved budget requests during the past three years, 269 requests totaling $30.9 million had students as the only target population; 47 requests totaling $13.5 had either adults (staff or parents) or a combination of adults and students as their target population[25]. In this analysis, we focus on the unit cost of the 269 programs with students as the only target population, which totaled $30.9 million dollars.

The unit cost of the 269 programs with students as the only target population ranged between $0.02 per student[26] and $15,597.92 per student, with a median of $219.20 per student. Figure 7 shows the

[25] Of the other 16 approved budget requests, 9 requests totaling $10.4 million were from the Operations Division, which had a different budget request form and did not ask for the target population information; and the other 7 requests totaling $0.6 million did not have the target population information.

[26] These very low-cost budget requests were either central office programs targeting students of the entire district or school programs targeting students of the whole schools.

distribution of unit cost of those programs, excluding 11 outliers that had a unit cost greater than $1,550 per student[27].

In the chart, the horizontal axis represents the unit cost scale showing the dollar amounts per student. The height of the bars indicates the number of approved budget requests that falls within the corresponding range on the unit cost scale. For example, the highest bar in the chart indicates that 78 approved budget requests had a unit cost between $50 per student and $150 per student.

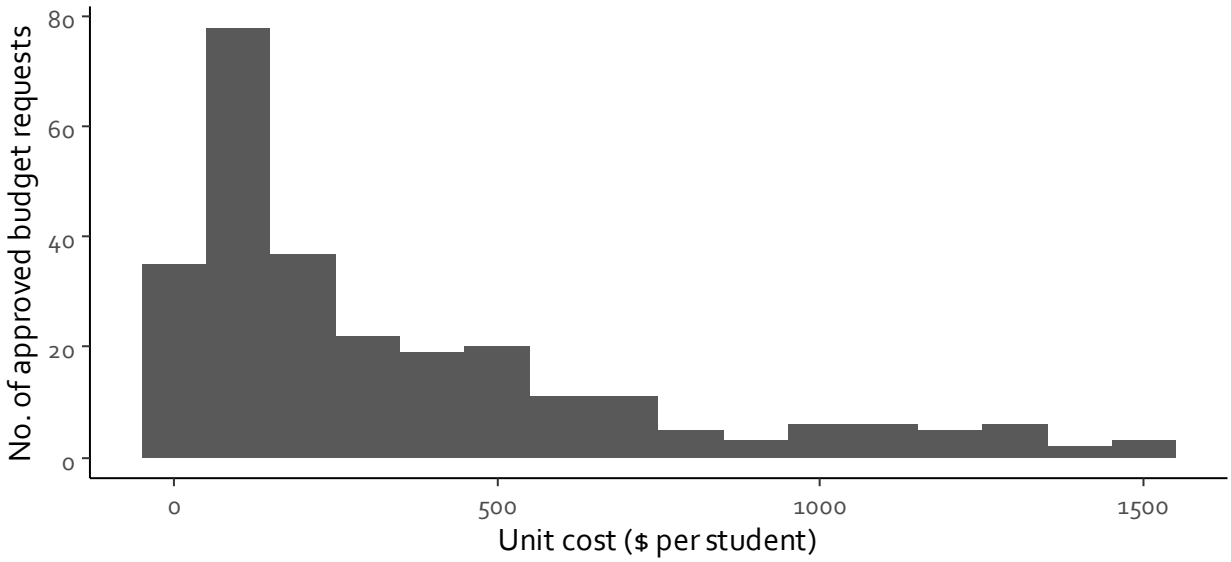


Figure 7 Distribution of unit cost for programs with student as the target population

According to Figure 7, the distribution is skewed to the right, meaning most of those budget requests with students as the only target population had a low unit cost. In fact, 234 of them (87.0%) had a unit cost lower than $1,000 per student and 200 budget requests (74.3%) had a unit cost lower than $500 per student.

[27] For the 20 outliers, the unit cost ranged between $1,858 per student and $15,598 per student. Together, they constituted 4.1% of the 269 budget requests with students as the only target population and 10.3% of the $30.9 million investment.

CHALLENGES COMING UP

Three years ago, we embarked on a journey to help the district improve capacity for managing its limited financial resources both effectively and efficiently to achieve the mission of helping students learn and grow. We have made tremendous progress by setting up a continuous improvement model that rests on a new budget process. However, we are far from crossing the finish line. To realize the full potential of the CIM, we will need to address some additional challenges. In this section, we present the challenges that are coming up next year when the district will be developing the 2018-19 budget. Longer-term challenges are discussed in the next section of CHALLENGES TO BE ADDRESSED DOWN THE ROAD.

THE BIG TEST

One of the most important aspects of financial planning and management is the question of what to do with the investment that has low or no return, or is no longer aligned with the organization's strategic priorities. Presumably, the money should be repurposed or some adjustments need to be applied to those programs. However, many organizations have struggled to take those proper actions for various reasons.

What we will do to programs with low or no A-ROI will send a message to the district and community about the norm and expectations JCPS is setting for the future.

What we have achieved through the CIM is to set upfront expectations for measurable goals and a time-frame (continuous improvement cycle) to achieve those goals. These two key elements help transform new spending from entitlement into time-bound conditional commitment. We hope this creates the conditions for limited resources to become flexible so that adjustments can be made to investment with low or no A-ROI. The adjustments can be changes in implementation or re-investing the resources into new innovative ideas and programs. We have overcome many challenges to set expectations for 332 new investment items on deliverables and time needed for achieving them. However, our first big test will come next year when 105 of them will reach the end of their continuous improvement cycle and be assessed on A-ROI.

CHALLENGES FOR THE COST CENTER HEADS

The core of the CIM is to directly link strategic priorities, budget, and outcomes so that we identify and fund what works. Central to the CIM is the concept of academic return on investment (A-ROI), through which the information about the linkage between the three components is encapsulated into a single index number (See Appendix IV for more detailed explanation and illustration).

For many district and school administrators, this is a new concept and perspective, which takes time to understand, digest, and develop agreement upon. On top of that, it takes time, resources, and skills to calculate the index, which might be challenging for many cost centers.

We will develop algorithms to alleviate some of the burdens on the cost center heads. However, many cost center heads with approved budget request(s) coming to the end of their continuous improvement cycles will probably still need to spend time: 1) studying A-ROI, 2) compiling data for calculating A-ROI

on their budget items, 3) preparing explanations if the A-ROI of their programs is low or zero, and 4) developing improvement plans to gain the support from the district for continued funding.

Challenges for the central office staff

To assist cost center heads with preparing their A-ROI data for review, the central office needs to increase capacity or make adjustments to how the district supports the cost centers on budget- and data-related needs.

Challenges for the supervisors

In the budget process, the first line of approval comes from supervisors of cost center heads, who can be an assistant superintendent or division chief. For the past three years, these supervisors have been put in a difficult position to perform conflicting roles to serve as the strong advocates for their direct reports but also make tough spending decisions as good stewards of tax payer money.

Starting next year, we will be able to provide A-ROI data on some existing spending items approved during the past three years when the supervisors weigh them against new budget requests for funding support. The assumption is that the information will empower the supervisors to demand adjustments to spending items with low or no A-ROI or decline them altogether, and feel confident and comfortable in justifying their decisions to their direct reports. Further, the information can help them target areas or schools for improvement so that they can spend more time on strategic planning and management to reduce and prevent problems, and less time on putting out fires.

The challenges faced by the supervisors include: 1) communicating about the Continuous Improvement Model to their direct reports and explaining the rationale, 2) working with their direct reports to prepare for the program review on A-ROI, and 3) helping develop strategies and plans to reduce the disruptions if an existing program is to be discontinued.

Challenges for the extended cabinet

The extended cabinet is the last stop in the budget approval process before the budget is presented to the school board. It is expected that some low or even no A-ROI items among the 105 programs will reach this point seeking for continued funding support. By design, this is another stopping point to prevent the district from continuing spending on those programs so that the resources can be put to better uses.

Supervisors who support continued funding for programs with low or no A-ROI from their direct reports will have to explain to the extended cabinet why that is the right decision. Collectively, the extended cabinet has to decide which of the existing programs with low or no A-ROI will be discontinued and which will be funded again. Equally important, the extended cabinet needs to justify the decisions and explain the justification to the board and to district and school administrators.

Challenges for the board

The school board is the final stopping point for spending on ineffective programs to be re-invested. It is expected that board members will feel pressure from some constituents or community stakeholders to support certain programs that should be discontinued as a result of the administration's recommendation due to low or no A-ROI.

The assumption is that board members will be able to explain to their constituents: 1) the reasons for the discontinuation of a program, 2) opportunities that have been provided to help the program succeed, and 3) new investments the district is making to address various unmet needs. It is not an easy task, especially when some students have benefited from the program but overall the program is not effective.

Summary on challenges coming up

To summarize, the decision of discontinuing a program should never be made lightly. Not only does it impact students' lives and people's livelihoods, but it also brings disruptions to operations. However, if it is the right decision, it is the leaders' responsibility to make sure limited resources are put to the best use to help students. It is not about taking the resources away or robbing Peter to pay Paul, as some people may see it. Rather, it is about creating an opportunity to challenge district and school administrators to come up with new ideas and better strategies to address unmet needs, and to have the resources available to implement those new ideas and more effective strategies.

> It is not about stopping the support to schools. Rather, it is about what we can do differently to better support schools with limited resources.

In addition to making tough decisions, it is incumbent upon the board and administration to explain the decisions to the district and community, which is equally, if not more, important. Despite a decision being sound as a result of rigorous processes based on data, it can still be subject to misinterpretation and ill-interpretation. Communicating the rationale and difficult situation (there are many unmet needs demanding resources and support) behind the decision will not necessarily win everyone over, but it definitely helps gain more understanding and support from the stakeholders and broader community, which is absolutely necessary for the sustainability of the system and processes.

By providing the A-ROI information for programs at the end of their continuous improvement cycle, we hope to empower leaders to make tough decisions with confidence and comfort, and, equally importantly, to provide the tools and language for them to communicate their decisions to stakeholders and constituents. What we will do with the programs with low or no A-ROI will reflect the system's readiness and willingness to tackle the technical, capacity, communication, and political challenges at the five levels discussed above (cost center heads, central office staff, supervisors, extended cabinet, and the school board). The result will send a message to the system about the norm and expectations the district is setting for the future.

Setting funding priorities

The above section deals with the challenges of taking proper actions on existing investments with low or no return (the back end). This section is focuses on how to make sure limited resources are invested in the right programs (the front end).

During the past three years, cost center heads were asked to submit budget requests without being provided with clear directions regarding the district's funding priorities. Based on our interviews with

district and school administrators[28], this presented four challenges to the budget process. First, without clear directions from the district, supervisors found it difficult to weigh and make decisions about which budget requests from their direct reports should be recommended for the next level of approval.

Second, cost center heads found it disheartening and a poor use of time to be asked to submit a budget request without clear directions but to later receive a rejection due to lack of alignment with the district's funding priorities.

Third, the final list of approved budget requests represented a priority hierarchy that developed organically during the tiered approval process, often without thoughtful discussions and clear communication both within and across levels. As a result, the hierarchy might be inadequate for addressing the most urgent or demanding needs. It might also be incoherent or even inconsistent, which could lead to redundancy or unfairness. All these issues made it difficult to explain the budget request decisions to cost center heads, which could have been a great opportunity to communicate to the district and school administrators about what is important and what is not.

Fourth, this open-field practice led to a large number of budget requests each year (182 for 2015-16, 199 for 2016-17, and 294 for 2017-18), which not only created a heavy workload for the district to support but, more importantly, made it challenging for decision making.

In the proposed new budget request and approval workflow (See Appendix V), setting funding priorities is formalized as the starting point of the entire process. The goal is to provide clear directions to cost center heads on funding priorities when we open the budget request process. We also made some additional changes to the workflow that will help reduce the amount of work for cost center heads and the volume of budget requests. Together, these changes should make the budget process less stressful and laborious, but more importantly, lead to more intentional, deliberate, and rigorous spending decisions.

We understand that establishing a formal structure and process for the district leaders to set funding priorities by itself is not enough. Driven by passion and vision, district leaders also need to anchor their discussions and decisions around funding priorities on solid, scientific data. This report is one document that can and should facilitate the discussions. We will provide additional information to prepare the district leaders to make those critical funding priority decisions.

[28] A small sample of district and school administrators were selected for the interviews.

CHALLENGES TO BE ADDRESSED DOWN THE ROAD

In addition to the above near-term challenges that are coming up next year, the district faces long-term challenges that require planning. Some of the long-term challenges emerged as the result of the system growing bigger and more complex. Some of them are not new, but have not been dealt with because more important things needed to be accomplished first at the early stages of implementing the CIM. While we don't have to address the challenges discussed in this section right away, they will start stalling progress, causing problems, and potentially leading to regression if not addressed in the next 6 to 18 months.

THE STRATEGIC PLAN CHALLENGE

From an administrative point of view, one of the major challenges in running a large organization is to develop a common language that clearly captures the organization's vision, goals, improvement priorities and strategies during a period of time so that they can be accurately communicated and executed at various levels throughout the complex organizational structure and can eventually be evaluated for success. This is exactly the purpose of a strategic plan.

The district is approaching the end of its second year implementing a five-year strategic plan called Vision 2020. However, Vision 2020 has not been fully integrated into the budget process and decision making. Ideally, the budget season should start with the district leaders setting funding priorities based on a review of the district's progress on the strategic plan and investments made to implement the plan. Then, the funding priority decisions should be communicated to the district and school administrators using the Vision 2020 vocabulary in terms of strategy, targets, and indicators. Next, cost center heads submit new budget requests based on the directions set by the district leaders. Last, district leaders make budget decisions on both new budget requests and end-of-CIM-cycle existing programs based on their alignment with the funding priorities, proposal quality (for new requests), and A-ROI (for existing programs).

To tackle this challenge, we need improvement in three areas. First, we need to continue to improve the structure and processes to enhance Vision 2020's role as the leading document in our decision making. We hope to achieve this by implementing the changes proposed in the new budget request and approval workflow.

Second, we need to boost our efforts to communicate the strategic plan to district and school administrators of all levels. During the budget process, we observed varying degrees of understanding of Vision 2020 among the cost center heads. In some cases, we even received calls from cost center heads asking which Vision 2020 strategy they should check on their budget request proposal, why they could not select all strategies, or why they were being asked to identify strategies at all. In other cases, cost center heads checked strategies that did not apply to their programs[29].

Upon its finalization, the strategic plan was shared with the district and school administrators by distributing the Vision 2020 booklet. However, the rationale and coherence of the document have not

[29] In these cases, corrections were made by the Planning and Program Evaluation Department.

been adequately communicated to and studied by the cost center heads at both the district and school levels. On top of that, many of the languages used in Vision 2020 are not very specific and subject to different interpretations. As a result, Vision 2020 is falling short of being a powerful tool for the district to manage focus, message, and resource allocation.

For example, "Eliminate achievement, learning, and opportunity gaps" can be interpreted in multiple ways. Among the 675 budget requests submitted, 207 checked this strategy. However, they varied widely in terms of the position requested (e.g., interventionist, success coach, counselor, assistant principal) and programs to be implemented (e.g., STEM, one-to-one technology initiative, community schools). While creative ideas and innovative programs should be encouraged, the question is whether all of them fit with the intended priorities. If not, providing some examples should help with the communication and interpretation problem.

Third, some painstaking work needs to be done to reach consensus on the meaning and scope of some strategic priorities. For example, deeper learning is a strategic priority that received a great deal of attention and discussions during this budget process. One driving question in those discussions was how much we were investing in deeper learning. Depending on the definition of deeper learning, the answer to this question could vary drastically.

In the strategic plan, semantically, deeper learning appears twice: "Goal: Deeper Learning", which includes seven strategies from 1.1.1 to 1.1.7, and strategy 2.1.1 "Personalize deeper learning" under "Goal: Professional Capacity in Teachers and Leaders". Substantively, it can be argued that, of the 30 strategies in Vision 2020, strategy 1.1.1 "Adopt a broader definition of learning" might fit better by a narrower definition of deeper learning. Or, the question of what deeper learning is can be approached by including only budget requests that mentioned deeper learning in the proposal including in the proposal title or any other field.

As a result, there could be three very different answers to the question of how much we are investing in deeper learning. If we took the semantic approach by including all budget requests that checked any of the strategies from 1.1.1 to 2.1.1, the answer would be $19.4 million. If a narrower definition of deeper learning was taken by including only strategy 1.1.1, the answer would be $3.9 million. Lastly, if we included any budget request with the phrase "deeper learning" in it, the answer would be $4.1 million. This issue matters not just because of the different answers to the same question. More importantly, it will send a message to the district about what is and is not central to the concept of deeper learning.

THE COMMUNICATION CHALLENGE

The ultimate success of the CIM requires concerted and committed effort from all who are involved in this work and whose lives will be impacted, which cannot be achieved without the collective understanding and buy-in from all stakeholders. Persistent and effective communication is key to helping people understand the goals, rationale, and roadmap, as well as the bumps expected on the journey; and to gaining their support. So far, our implementation of the CIM has outpaced our communication for gaining understanding and support.

When we started in 2015-16, we focused on new general fund budget requests only. Now, Section 7 and Title II funds are part of the system and Title I will be included next year. In addition, we have started rolling existing programs into this process and making district initiatives competitive offerings available to all schools for application. Next year, we will be reviewing 105 programs totaling $33 million on A-ROI, which could potentially save some money from ineffective programs and have it re-invested in promising innovations to meet student needs.

After much trial and error, we have managed to communicate effectively with the assistant superintendents about these changes, reasons behind them, as well as plans for the future. We have made some progress with the board and some cabinet members. Still, more work is needed. At the school level, the understanding of CIM mostly came from the budget request and approval process, which a majority of the school administrators have experienced after three years. However, many of them have not received adequate communication about the rationale, rigor, and fairness of the system, as well as the consequences if their programs do not reach the goals they set or have a low A-ROI at the end of the continuous improvement cycle.

Moreover, we have not made any formal attempt to explain the CIM and the cycle-based budgeting approach behind it to teachers, parents and the broader community either by holding meetings[30] or distributing materials that are designed to help people without a financial background understand the importance of the work, how it will eventually help students and their lives, as well as how they can be impacted in both the short run and long run.

As of now, we are losing ground on the messaging. Despite progress made, the most recent Comprehensive School Survey results indicated that only 38% of teachers and principals thought the district "manages funding in an efficient and responsible manner", which was down from 40% last year, 58% in 2015, and 65% during the previous three years.

Without a deliberate effort from the district and clear strategy to get the message out, negative information will reinforce itself and get magnified by media, which then creates the political pressure for district leaders to act and do something. That can be an opportunity to share the work that has been done and the plan for future steps. But it can also lead to confusion, distraction, and even conflicts as other programs or approaches are introduced in response to the call for action, when the district is already active and making progress. Strategic proactive communication can help prevent many such problems from arising and avoid energy being wasted.

THE SYSTEM CAPACITY CHALLENGE

As the CIM continues to grow in size, depth, and reach, it demands that the district as a system to grow in capacity and sophistication as well so that it can handle the ever-growing amount of work and increasing complexity of the tasks. In the next 6 to 18 months, attention and actions are needed to improve the system's capacity and sophistication in four areas: 1) how cost center heads design and plan new initiatives that require new financial investment, 2) how cost center heads develop and make

[30] Communication should be a two-way street. We can also learn a great deal from those meetings, which will help us further develop and improve the CIM.

adjustments to their existing budget to meet the growing needs, 3) how the central office utilizes the rich budget request and approval data to inform both strategic and operational decisions, and 4) how the central office meets the growing demand for support and development of the Budget Request System.

PLANNING CAPACITY

Good implementation of a program usually starts with good planning, which involves developing a logic model showing how the requested resources will be used to do what activities to help whom achieve what outcome. In addition to the two problems identified in the budget requests that we started addressing this year (unreasonable case load and lack of specificity in measurable target outcomes. See the FOLLOW-UP SUPPORT TO STRENGTHEN IMPLEMENTATION subsection earlier for detail), we have repeatedly observed other planning-related issues, including unclear explanations of how the proposed program can help the targeted students, inconsistent information about which students will be served, lack of a clear or practical monitoring plan, etc.

In education, generally, planning is not a skill set cost center heads have acquired as they rise to the administrator position. Rather, it is more of something they develop and grow through much trial and error along the administrative journey. We will develop plans to create some opportunities to fill the gap (e.g., training, workshop, peer coaching).

BUDGET CAPACITY

When something needs to be addressed for a cost center, there are generally two approaches to meeting the need if it involves budget. One is to make adjustments to the existing budget by re-prioritizing spending so that money can be shuffled to meet the need. The other is to request money from the district to cover the expenditure. As the district's revenue continues to grow, it is natural to rely more on the second approach because it is a relatively easier route.

However, we cannot expect the revenue to grow forever. At the same time, it is an inefficient use of the district's limited resources when some of those funded needs could have been met by creative use of the existing school and central office department budgets. With better budgeting, schools and central office departments can meet their needs without submitting a budget request. As a result, some of those un-funded needs can be supported. For example, had some cost centers whose budget requests were approved been able to support their needs by making adjustments to their existing budgets, we could have funded some of the $22.2 million unmet needs in 2017-18.

JCPS has a total of 232 cost centers (175 schools and 57 central office departments). Of them, 171 have submitted at least one budget request in the past three years and 64 have never submitted a budget request during that time period. Their names have never appeared in this and last year's Lessons Learned report. However, they should be recognized and commended for relying on their existing resources to solve problems.

The acknowledgement of these 64 cost centers does not mean the other 171 cost centers submitted budget requests without first looking at whether they could solve their problems by making adjustments to their existing budgets. That said, it should not surprise us that some of the funded needs might have

been met by better budgeting within those cost centers and there is room for improving school and central office department level budgeting.

Support capacity

Over the past three years, the online Budget Request System has grown significantly. Starting with just new general fund budget requests, the system now has Section 7, Title II, and general fund budget requests, which include both the new requests and existing programs submitted for reset. We have also made hundreds of improvements to add new functions, increase system efficiency, and streamline workflow. Behind the front end interface, more than five thousand lines of code have been written to develop algorithms to check system integrity, automate processes, and generate reports.

The Budget Request System will continue to grow in size, sophistication, and customer base. Next year, we plan to: 1) roll Title I and more existing programs into the system; 2) add new features and functions (more than 50 improvements have been planned) to accommodate the changes in the budget request and approval workflow (See Appendix V) as well as further improve efficiency and user experience, and 3) provide decision tools to assistant superintendents.

Analytics capacity

After three years of implementing the CIM, we have accumulated a very rich data set with 1,166 budget requests (785 general fund, 325 Section 7, and 56 Title II), with each budget request containing up to 145 data points on cost center, target student or teacher population characteristics and needs, program design, baseline and target outcomes, implementation and monitoring plan, budget details, and budget decisions. In this report, we did a very high-level analysis of the general fund budget request and approval data, but a deeper dive into this rich data set is needed to answer some questions that are very important for the district to make critical strategic and operational decisions.

For example, what needs do schools have and how do they differ between different schools[31]? How have schools tried to meet those needs by implementing what strategies? What needs have persisted despite continuous investment and what needs have been met? What is the A-ROI on the strategies? How has the central office helped schools meet those needs by implementing what strategies? Is there coherence and cohesion between schools and central office on needs, focus, and strategies? Is there redundancy between central office departments in initiatives?

These deeper-level analyses should be conducted not only at the district level for the board and cabinet to make funding priorities, policy and strategy adjustment decisions, but also at the achievement area level so that the assistant superintendents can use the information to better help and support schools.

[31] The needs might be different between priority and non-priority schools, Title I and non-Title I schools, high-achieving and low-achieving schools, schools with many veteran teachers and schools with many new teachers, etc.

LAST WORDS

Change is difficult and complicated, especially in a district as large and complex as JCPS and when the topic is budget and finance that not only impact every aspect of district and school operations, but also are tied with people's pride, sense of importance and relevance, and even livelihood. It is foreseeable that we will encounter bumps and headwinds along the journey. Three things are needed for us to build upon the progress already made and overcome all the challenges ahead.

First, we need focus and commitment. It is not easy to be leaders of JCPS. They face some very entrenched and persistent problems and mounting pressure to take actions and deliver results. There are numerous demands, requests, and offers of help (both wanted and unwanted) they need to address. Remaining focused and committed will help us avoid taking shortcuts to solve problems, getting distracted or even deflected by noise, and being susceptible to new bandwagons.

Second, we need patience. We share the sense of urgency expressed by the board, parents, district employees, and the broader community, and are determined to improve our use of the tax payers' money for achieving our mission. That said, it takes time for people to understand change and accept change. It also takes time for the district to grow its capacity to manage change. Going too fast could be counter-productive and even jeopardize the progress already made.

Third, we need tolerance. Despite good intentions and best efforts, mistakes will be made, which might unfairly impact some schools and stakeholders. Tolerance for imperfection will help us turn those mistakes into opportunities for improvement instead of obstacles to change.

APPENDIX I: 2017-18 NEW INVESTMENT

The district's annual budget increased by $6.8 million in 2015-16, $24.3 million in 2016-17, and $24.3 again in 2017-18. In this appendix, we focus on how the $24.3 million new money was invested in terms of the Vision 2020 strategies and program target areas. Additionally, we also look at the allocation of this $24.3 new investment through an equity lens to see how it is distributed across schools.

VISION 2020 STRATEGIES

Figure 8 shows the distribution of 2017-18 budget request by Vision 2020 strategy. In the chart, each bar represents the total request in millions of dollars for the corresponding strategy, with the blue portion indicating the approved amount and red portion indicating the declined amount.

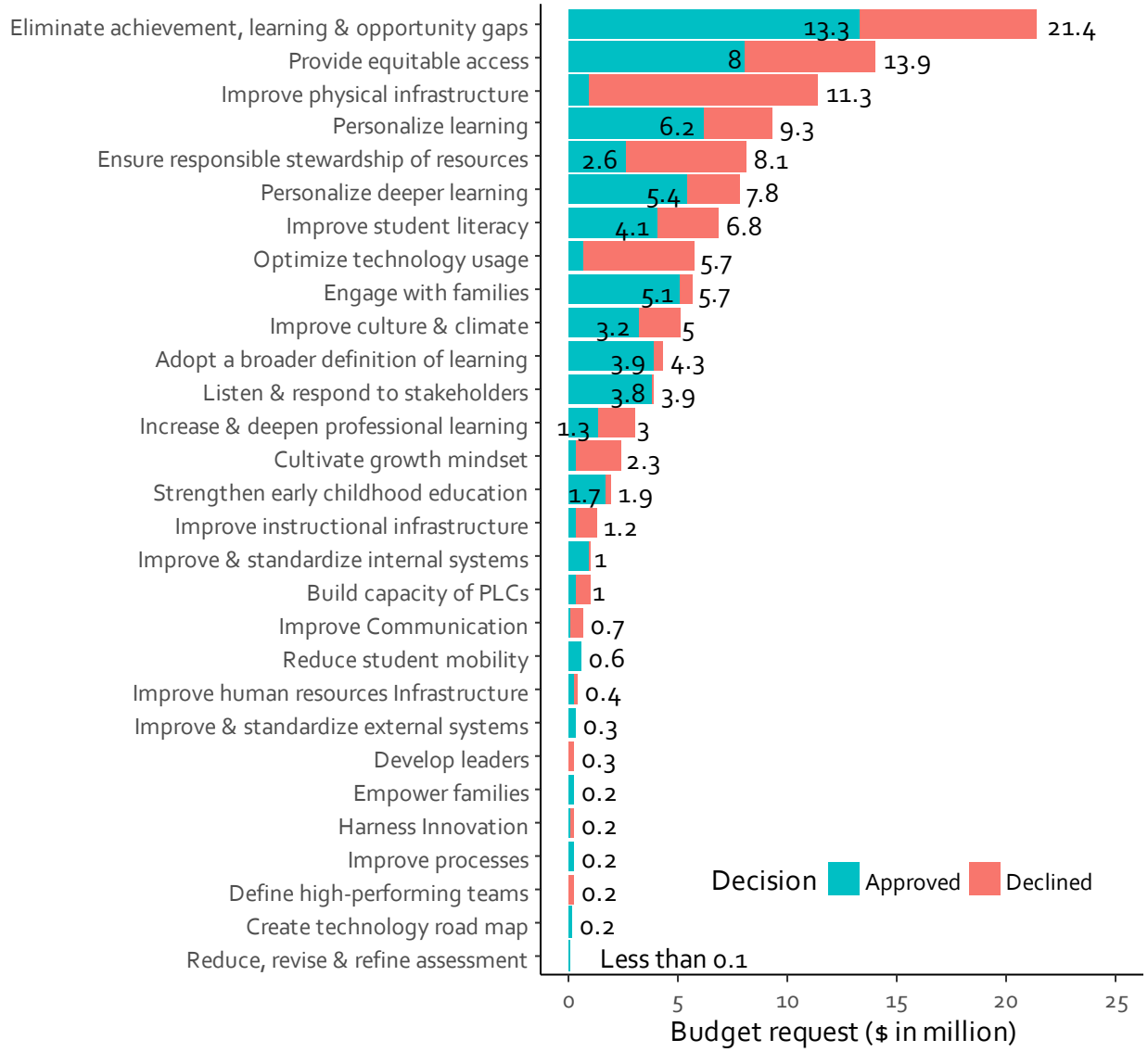


Figure 8 Budget request approval and decline in 17-18 by strategy

According to Figure 8, central office departments and schools requested new funding support to implement a wide range of strategies. Specifically, $21.3 million was requested to improve JCPS through implementing the strategy of "Eliminate achievement, learning, and opportunity gap". This was followed by "Provide equitable access" ($13.9 million) and "Improve physical infrastructure" ($11.3 million). In contrast, the fewest requests were submitted to implement the strategies of "Reduce, revise & refined assessment", "Create technology road map", and "Define high-performing teams".

Whereas the entire bars (both the red and blue portions) reflect the district and school administrators' collective thinking of what Vision 2020 strategies should receive additional investment in 2017-18, the blue portions show the prioritization results of the district's senior leadership team, which were then endorsed by the JCPS school board. Figure 9 shows the strategy approval rate in descending order. In the chart, the bigger the black dots, the larger the total request (in million).

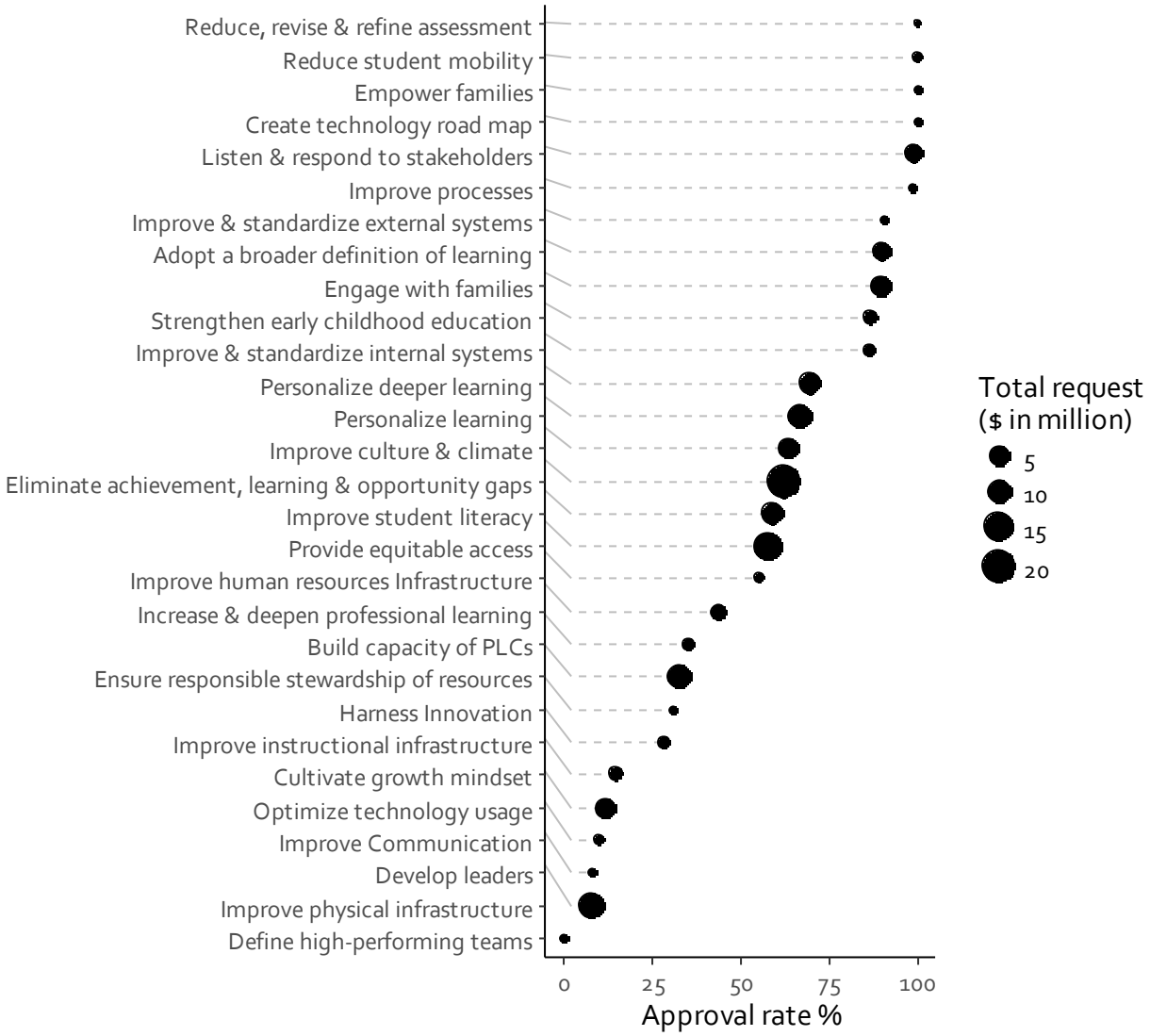


Figure 9 Approval rate by strategy in 2017-18

The approval rate ranged between 0% and 100%, with an average of 58.6%. The variation seems to be independent of the total requested amount. For example, cost center heads requested large amounts of new investment to implement "Eliminate achievement, learning & opportunity gaps" ($21.4 million) and "Improve physical infrastructure" ($11.3 million), but experienced very different approval rates of 62.4% and 8.0%, respectively; both "Reduce, revise, & refine assessment" and "Define high-performing teams") received the smallest amounts of new investment request, with 100% approval rate for the former and 0% for the latter.

Together, the above approved amount and approval rate data provide a picture of the district's new investment priorities in 2017-18 by Vision 2020 strategy. What these results tell us is that, clearly, priority was given to some Vision 2020 strategies over others. However, these priorities by and large developed organically during the tiered approval process since no direction was given by the district's senior leaders[32]. This created some challenges for district administrators when they were reviewing the budget requests and making approval or rejection decisions.

At the same time, we currently know very little about how the prioritization among strategies was developed, whether differences in prioritization existed at different stages of the approval process and between central office and school requests, as well as whether the prioritization remained consistent or changed during the past three years. We have proposed a new budget request and approval workflow (See APPENDIX V) that suggests the budget process start with the district leaders setting funding priorities. Answers to these questions would provide a historical context about how the 645 budget requests decisions (332 approvals and 313 declines) were made and why they were made, which should be a critical piece of information for the district leaders when they set funding priorities for the 2018-19 budget. We will conduct further investigations to answer these questions and share the findings in a series of subsequent reports.

There are two caveats when interpreting the above results about the 2017-18 funding priorities mapped against Vision 2020 strategies. First, the new investment requested for one strategy was usually not for that strategy only, since cost center heads were allowed to select up to three Vision 2020 strategies on the budget request form. That is, while $21.4 million was requested for "Eliminate achievement, learning, and opportunity gaps", a portion of that amount was requested to implement other strategies as well.

Second, it is important to remember that the results only represent the new investment approved for 2017-18, rather than the entire budget picture. The fact that a strategy received little or no new investment according to Figure 8 and Figure 9doesn't necessarily mean the district is not spending resources and energy on that strategy. For example, only $74,568 of new investment was approved for "Reduce, revise, & refine assessment", but a great deal of effort has been put into implementing that strategy.

TARGET AREA

[32] This holds true for the budget request decisions of the previous two years too.

In addition to alignment with Vision 2020, cost center heads were required to identify outcome areas their proposal intended to target for improvement on the budget request form. Another way to understand how new investments were made is to look at the improvement areas targeted by the approved budget requests[33]. Figure 10 shows the distribution of the 2017-18 budget requests by target area. Again, each bar represents the total requested amount in millions of dollars for the corresponding target area, with the blue portion indicating the approved amount and red portion indicating the declined amount.

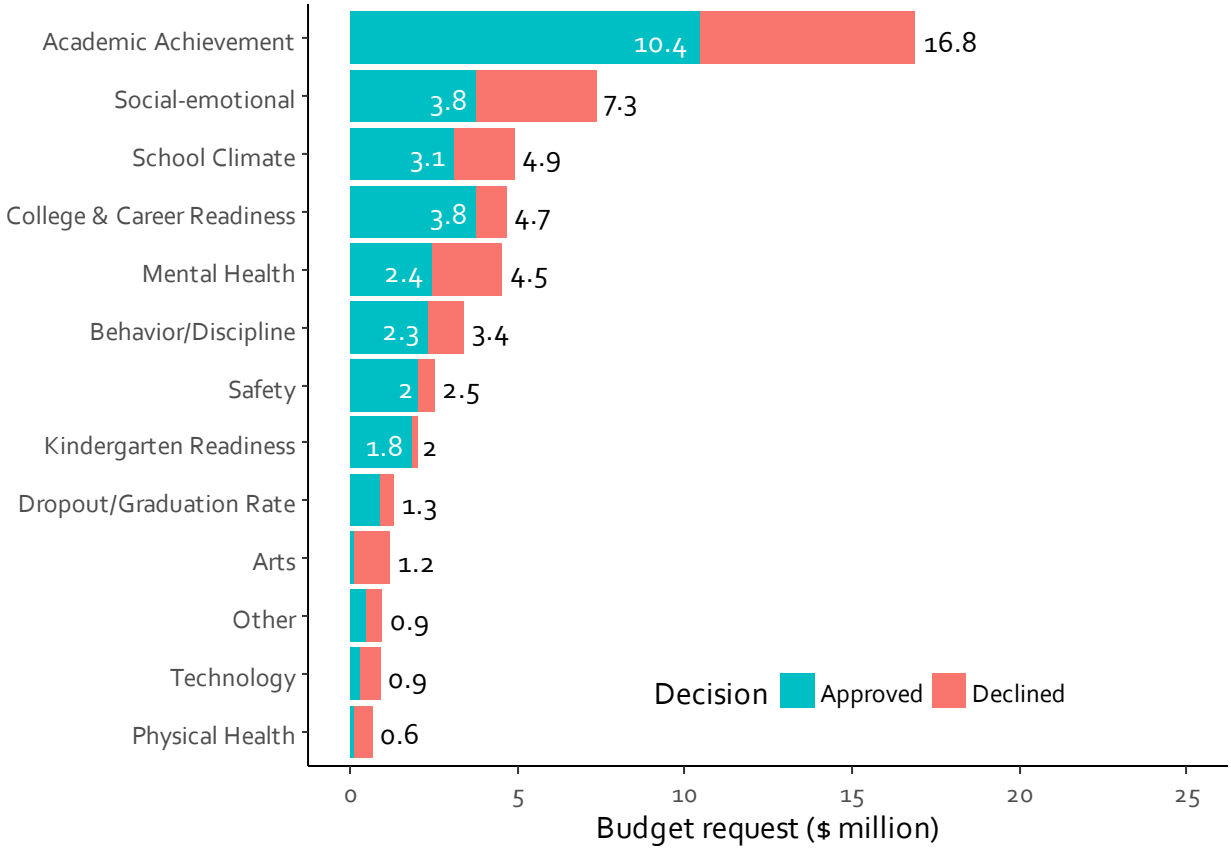


Figure 10 Budget request approval and decline in 17-18 by target area

Figure 10 seems to mirror the issues that have been mostly talked about by the district leaders. Specifically, "Academic Achievement"[34], "Social-emotional", and "School Climate" were the top three areas targeted for improvement, with requested new investments of $16.8, $7.3, and $4.9 million, respectively. In contrast, much smaller amounts of new investment were requested to improve the areas of "Arts", "Technology", and "Physical Health" ($1.2 million, $0.9 million, and $0.6 million, respectively).

[33] Similar to the Vision 2020 strategies on the budget request form, cost center heads were allowed to select multiple target areas and there is no limit to how many areas can be targeted for improvement.

[34] Academic Achievement covers literacy, reading, math, science, social studies, history measured by KPREP, End of Course and some other subject-specific measurements such as Bellarmine Literacy Project assessments.

In terms of approved new investments, high priority was given to requests targeting "Academic Achievement" ($10.4 million), "Social-emotional" ($3.8 million), and "College & Career Readiness" ($3.8 million). As far as approval rate is concerned (See Figure 11), however, high priority was given to requests targeting "Kindergarten Readiness" (89.0%), "College & Career Readiness" (80.7%), & 'Safety" (79.5%). It is also noted that "Arts", "Physical Health", and "Technology" not only received the smallest amounts of new investment requests ($1.2 million, $0.6 million, and $0.9 million, respectively), but also had the lowest approval rates (9.0%, 12.8%, and 34.0%, respectively).

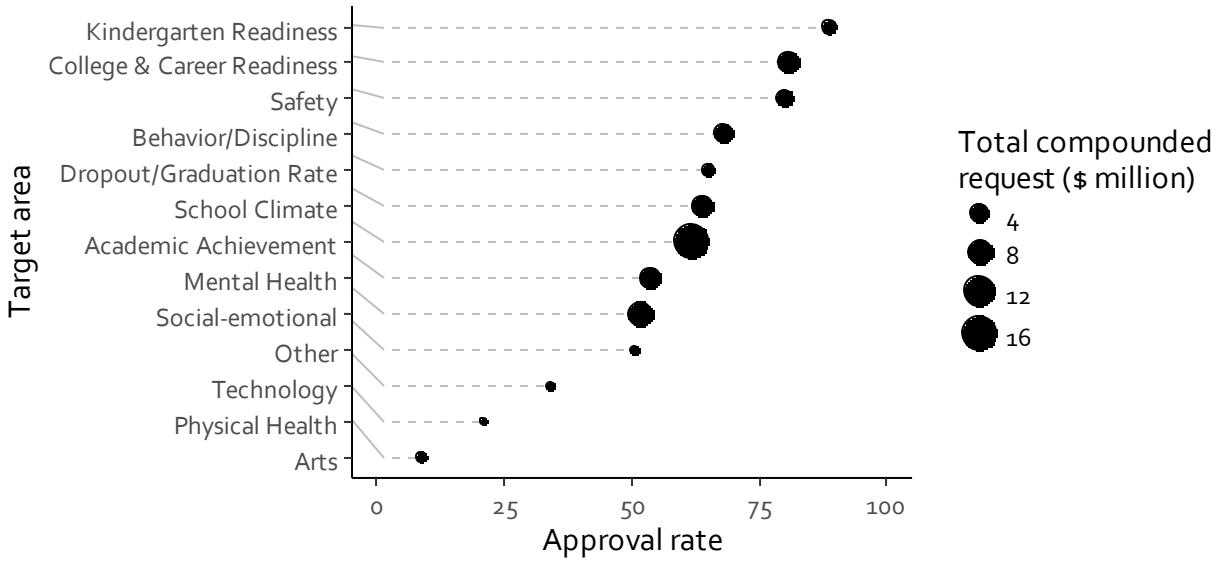


Figure 11 Approval rate by target area in 2017-18

EQUITY

Equity can be looked at from many angles. In this report, Title I and non-Title I schools are compared on the new investment they will receive in 2017-18. Of the 102 Title I schools, 72 submitted at least one budget request (70.1% submission rate). In contrast, only 36 of the 73 non-Title I schools requested funds (49.3% submission rate).

Table 4 reports the decision results of the budget requests submitted by schools. Specifically, Title I schools submitted 118 budget proposals requesting $8.3 million and received $5.1 million (61.9% approval rate), while non-Title I schools submitted 60 budget proposals requesting $3.1 million and received $2.1 million (65.9% approval rate).In terms of quantity of budget requests, the Title I schools had a higher approval rate than the non-Title I school. When it comes to percentage of dollars approved, however, non-Title I schools had a slight edge in approval rate.

	Amount			Count		
Title I	Approved	Declined	Approval Rate	Approved	Declined	Approval Rate
N	2,068,426	1,069,708	65.9%	39	21	65.0%
Y	5,134,058	3,202,345	61.9%	87	31	73.7%

Table 4 2017-18 budget request and approval by Title I status

In addition to new budget from school-initiated programs, schools also receive new investment from district initiatives. Figure 12 shows the new investment schools will receive in 2017-18 by Title I status. Each bar represents the total new investment, with the blue portion from school new initiatives and red portion from district new initiatives. It is apparent that the district new initiatives were predominantly focused on Title I schools. Of the $3.1 million new district initiatives that will be spent on schools, $2.4 million (77.4%) will be spent on Title I schools and only $0.7 million (22.6%) will be spent on non-Title I schools.

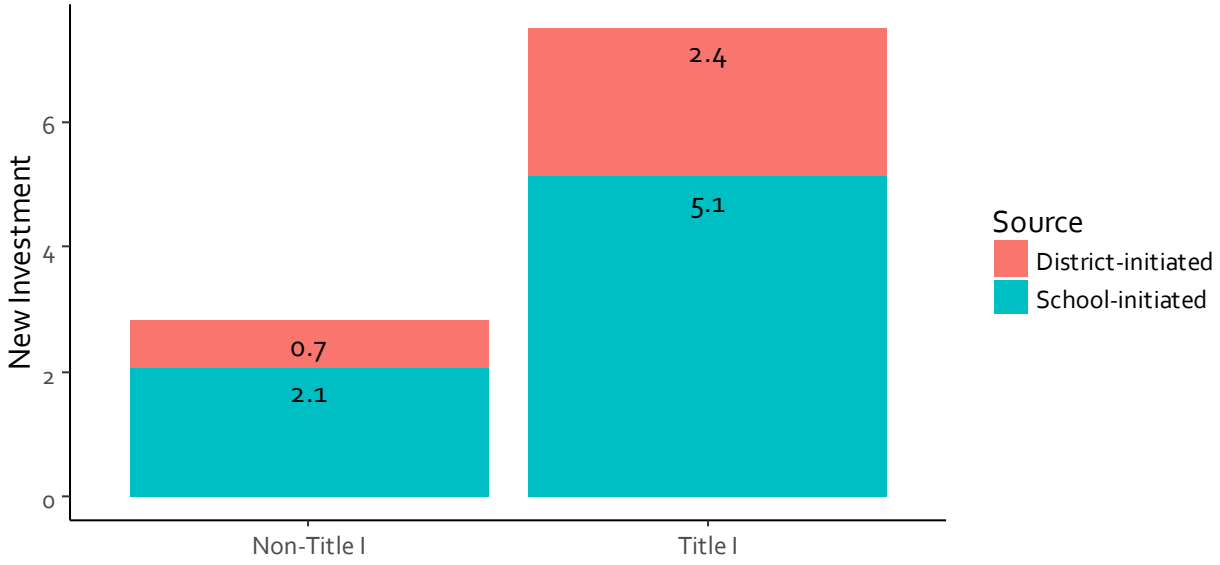


Figure 12 2017-18 new investment in schools by Title I status

When all schools are counted, on average, the Title I schools will receive $73,826 in new investment in 2017-18, which is close to twice the $38,482 in new investment that will be received by the non-Title I schools.

APPENDIX II: BUDGET REQUESTS AND DECISIONS OF 2017-18

Center	Title	Decision	Type	Cost	Cycle
AFIF	Additional AFIF funding	Approved	Recurrent	500,000	3
AFIF	Facilities performance contracting	Declined	Cyclical	5,000,000	
Academic Achievement K-12 Region 5	Elementary Behavior Support Sites	Approved	Recurrent	508,675	3
Academic Achievement K-12 Region 5	SCM Training Supplement - Districtwide	Approved	Recurrent	125,000	1
Academic Services Division	Deeper Learning Infrastructure Support	Approved	Recurrent	458,652	3
Academic Support Services	Mental Health Support for Students 17/18	Approved	Recurrent	305,385	3
Academic Support Services	Student Risk Universal Screener Implementation (Includes 10	Declined	Recurrent	920,060	
Academic Support Services	Mental Health Counselors	Declined	Recurrent	617,949	
Academic Support Services	Trauma Informed Care Implementation	Declined	Recurrent	169,326	
Academic Support Services	AmeriCorps Specialist 1	Declined	Recurrent	142,535	
Academic Support Services	Evaluation Plan	Declined	One year	42,595	
Academic Support Services	Youth Mental Health First Aid Program	Declined	One year	24,000	
Activities and Athletics	High School Athletic Program Supplement	Approved	Recurrent	315,000	5
Activities and Athletics	Middle School Athletic Director Extended Days	Approved	Recurrent	112,226	3
Activities and Athletics	Renovation of Westport Middle and Stuart Middle tracks and	Declined	One year	120,000	
Administrator Recruitment and	Leadership Development for Struggling Schools - NISL and AP	Approved	Recurrent	22,500	1
Administrator Recruitment and	Flexible Professional Development and Classified Summer	Approved	Recurrent	15,600	1
Alex R Kennedy Elementary School	Teacher of Interventions	Declined	Recurrent	41,033	
Alfred Binet School	Data Manager	Approved	Recurrent	42,595	2
Atkinson Academy	Targeted Student Support: Primary Grade Levels	Approved	Recurrent	67,268	5
Atkinson Academy	Targeted student Support- Intermediate Grade Levels	Declined	Recurrent	67,268	
Auburndale Elementary School	WIN Teachers General Fund Request to be Paired with Section 7	Approved	Recurrent	16,817	2
Auburndale Elementary School	WIN Teachers General Fund Request	Declined	Recurrent	67,268	
Ballard High	College Access Resource Teacher (CART)	Approved	Recurrent	75,900	3
Ballard High	Teachers to Implement Talent Development Academies and	Declined	One year	134,535	
Bates Elementary	Bates Budget Request Proposal	Approved	Recurrent	67,268	1
Bates Elementary	Bellarmine Literacy Project	Approved	Recurrent	33,634	3

Blake Elementary	Focused Intervention Team	Approved	Recurrent	67,268	1
Bloom Elementary	Bellarmine Literacy Project	Approved	Recurrent	38,739	3
Blue Lick Elementary	Reading Interventionist	Approved	Recurrent	67,268	1
Bowen Elementary	Bellarmine Literacy Project	Approved	Recurrent	38,739	3
Bowen Elementary	Novice Reduction Teacher	Declined	Recurrent	67,768	
Brandeis Elementary	Bellarmine Literacy Project	Approved	Recurrent	33,634	3
Breckinridge Franklin Elementary	Reading Recovery Teacher	Approved	Recurrent	67,268	1
Brown School	Secondary Order/Receiving Clerk	Declined	Recurrent	39,925	
Brown School	School Clerk - Student Data Tracking, Parent Communications,	Declined	Recurrent	32,296	
Butler Traditional High School	English/Literacy Lab Teacher	Approved	Recurrent	67,268	4
Camp Taylor Elementary	Math Interventionist	Approved	One year	67,268	
Cane Run Elementary	Cane Run Mental Health Counselor	Approved	Recurrent	66,795	3
Carter Elementary	Carter Reading Interventionist	Approved	Recurrent	33,634	3
Central High School	High School Montessori Program Implementation	Approved	Recurrent	137,035	2
Central High School	At-Risk Assistant Principal	Declined	Recurrent	109,586	
Chancey Elementary School	Reading Interventionist	Approved	Recurrent	33,634	1
Chenoweth Elementary School	Bellarmine Literacy Project	Approved	Recurrent	38,739	3
Chenoweth Elementary School	Chenoweth Reading Recovery General Budget Request 2017	Declined	Recurrent	67,268	
Churchill Park Rehab School	Ipads for CHP	Approved	One year	4,750	
Churchill Park Rehab School	Classroom 18	Declined	One year	50,000	
Churchill Park Rehab School	Classroom Door Security	Declined	One year	5,000	
Churchill Park Rehab School	Student-use Sink in Cafeteria	Declined	One year	1,250	
Cochran Elementary	Math Intervention Teacher	Approved	Recurrent	26,907	1
Cochrane Elementary	Reading Intervention Instruction	Declined	Recurrent	67,268	
Cochrane Elementary	Music Instruction	Declined	One year	67,268	
Coleridge-Taylor Elementary	Instructor III as a member of the SRT team and an Instructional	Approved	Recurrent	94,289	2
Communications and Community	Marketing campaign for JCPS/Talent Academies	Approved	One year	70,000	
Communications and Community	Website Maintenance	Approved	Recurrent	25,000	1
Computer Education Support	eWalk Electronic Walkthrough Tool (by Media-X Systems)	Declined	Recurrent	70,000	
Computer Education Support	Multiple Mobile Technology Classrooms	Declined	Recurrent	50,000	
Computer Education Support	STEAM Support through Research & Development (R&D)	Declined	Recurrent	50,000	

Computer Education Support	World Technology Competitions	Declined	Recurrent	30,000	
Conway Middle School	Additional In-School Security	Approved	Recurrent	41,578	3
Coral Ridge Elementary	Reading Recovery Teacher	Approved	Recurrent	33,634	1
Crosby Middle School	Math and ELA Instructor III	Approved	Recurrent	68,407	1
Crosby Middle School	In School Security Monitor	Approved	Recurrent	41,578	1
Crums Lane Elementary	Literacy Gap Reduction - Summer and School Year Intervention	Approved	Recurrent	67,268	1
Curriculum Management	Challenger Center at Academy @ Shawnee	Approved	One year	95,000	
Curriculum Management	Music Goal Clarity Coaches (Band, Choir, Orchestra, Elementary	Declined	Recurrent	387,394	
Curriculum Management	Arts-Specific Goal Clarity Coaches	Declined	Recurrent	387,394	
Curriculum Management	World Language Goal Clarity Coaches	Declined	Recurrent	387,394	
Curriculum Management	Practical Living Specific Goal Clarity Coaches	Declined	Recurrent	387,394	
Curriculum Management	Stage One Family Theatre	Declined	One year	100,000	
Curriculum Management	Extended Days for Staff Developers	Declined	Recurrent	18,000	
Curriculum Management	Kentucky Science Center Enrichment Program	Declined	One year	16,160	
Curriculum and Instruction	Advanced Placement Fee Gap Coverage	Approved	Recurrent	285,882	3
Curriculum and Instruction	REACH Summer Enrichment Program	Approved	Recurrent	100,000	5
Curriculum and Instruction	BRIGANCE Early Entrance to Kindergarten Screenings	Approved	Recurrent	5,000	1
Curriculum and Instruction	Universal Screener (MAP Testing)	Declined	Recurrent	1,008,000	
Curriculum and Instruction	Response to Intervention/Extended School Services Coordinator	Declined	Recurrent	511,296	
Curriculum and Instruction	Social Studies Content Goal Clarity Coaches Equity	Declined	Recurrent	232,436	
Curriculum and Instruction	National Center for Families Learning	Declined	Recurrent	92,462	
Curriculum and Instruction	Advance Program/GT Coordinator Salary	Declined	Recurrent	85,568	
Curriculum and Instruction	Middle School History Alive! Subscription Renewal	Declined	One year	82,000	
Curriculum and Instruction	Teacherpreneur JCPS VOICE	Declined	Recurrent	30,000	
Data Management, Planning and	Support for Schools out of Diversity Guideline	Declined	Recurrent	123,616	
Diversity, Equity and Poverty Division	District wide Cultrual Competency Training	Approved	Recurrent	400,000	5
Diversity, Equity and Poverty Division	Girls' Street Academy	Approved	Recurrent	272,070	5
Diversity, Equity and Poverty Division	Street Academy	Approved	Recurrent	110,000	3
Diversity, Equity and Poverty Division	Out of school time/after school time tutoring	Approved	Recurrent	100,000	5
Diversity, Equity and Poverty Division	Foster Care regulation under ESSA	Approved	Recurrent	80,794	1
Diversity, Equity and Poverty Division	Community Schools	Approved	Recurrent	50,000	2

Diversity, Equity and Poverty Division	Salary for Community Data Specialist	Declined	Recurrent	45,001	
Doss High	Continuation of Current Assistant Principal Position at Doss	Approved	Recurrent	109,586	3
ECE Placement and Assessment	Coordinator for Project Bounce	Declined	Recurrent	98,581	
ESL	ESL Expansion	Approved	Recurrent	3,999,567	1
ESL Newcomer Center	ESL Newcomer Academy projected teacher and BAI needs for	Declined	Recurrent	785,342	
ESL Newcomer Center	Equitable Standard Allocation for ESL Newcomer Academy	Declined	Recurrent	495,293	
ESL Newcomer Center	Resource teacher for ESL Newcomer Academy	Declined	Recurrent	77,163	
Early Childhood	FSY 2017-2018 KERA State Funded Preschool Award Rescue	Approved	Recurrent	1,076,280	3
Early Childhood	Kindergarten Readiness Summer Camp - July 2017	Approved	Recurrent	600,000	3
Eastern High	Student Community Liaison	Approved	Recurrent	43,740	3
Eisenhower Elementary School	Reading Recovery Student Support Eisenhower	Approved	Recurrent	22,871	2
Engelhard Elementary	Student Success Coach	Approved	Recurrent	34,203	3
Fairdale Elementary School	Interventionist	Approved	Recurrent	67,268	2
Farnsley Middle	Behavior Coach	Approved	Recurrent	34,203	3
Field Elementary	Culturally Competent Reading Instruction	Approved	Recurrent	26,320	3
Field Elementary	Culturally Competent Instructional Materials (Reading)	Declined	One year	41,817	
Field Elementary	Math Instruction Based On Problem Solving and Real World	Declined	One year	25,388	
Financial Planning and Management	STRATEGIC BUDGETING INITIATIVE - Request for funding for	Declined	Recurrent	150,000	
Foster Traditional Academy	Instructor III - Success Coach (SRT Member)	Approved	One year	68,407	
Foster Traditional Academy	School Attendance Clerk	Approved	One year	32,296	
Foster Traditional Academy	2nd Grade Instructional Assistant	Approved	One year	26,320	
Frayser Elementary	School Interventionist Plan to ROAR (Reach Outstanding	Approved	Recurrent	67,268	1
Frederick Law Olmsted Academy North	Read 180 UNIVERSAL	Approved	One year	30,000	
Frederick Law Olmsted Academy North	Mechanical Engineering Program Start Up	Approved	One year	16,466	
Frederick Law Olmsted Academy North	Chorus and Band	Approved	One year	10,700	
Frederick Law Olmsted Academy North	Robotics and Engineering	Approved	One year	8,798	
Frederick Law Olmsted Academy North	STEAM Cross-Curricular School Wide Projects	Approved	Recurrent	6,000	1
George Unseld Early Childhood Learning	George Unseld Early Childhood Center - School Security Monitor	Approved	Recurrent	73,378	1
Gilmore Lane Elementary	Gilmore Lane Budget Request Proposal 2017-2018	Approved	Recurrent	34,203	1
Goldsmith Elementary	Student Success Coach	Approved	Recurrent	34,953	1
Gutermuth Elementary	Reading Recovery Literacy Intervention Gutermuth	Approved	Recurrent	31,817	3

Hawthorne Elementary	Novice Reduction Acceleration Plan	Approved	One year	10,000	
Hawthorne Elementary	MAP Testing and Instructional Support	Approved	One year	6,500	
Highland Middle School	Behavior Coach	Declined	Recurrent	75,900	
Hite Elementary School	East End Summer ESS Learning (Hite, Lowe, and Middletown)	Approved	Recurrent	38,335	1
Hite Elementary School	Bellarmine Literacy Project	Approved	Recurrent	33,634	3
Home of the Innocents School	Home of the Innocents Expansion	Approved	Recurrent	93,588	2
Indian Trail Elementary	Mental Health Counselor	Approved	Recurrent	61,795	2
Indian Trail Elementary	Response To Interventionist	Approved	Recurrent	33,634	2
Information Technology	Business Machine Support Expense	Declined	Recurrent	150,000	
Iroquois High	Additional Assistant Principal	Approved	Recurrent	109,586	3
Jacob Elementary	School Counselor	Approved	Recurrent	86,953	4
Jeffersontown Elementary	Student Community Liaison	Approved	Recurrent	43,740	2
Jeffersontown Elementary	Jtown Elementary Success Coach	Declined	Recurrent	34,203	
Jeffersontown High School	Additional Assistant Principal	Approved	Recurrent	109,586	3
Jeffersontown High School	Building Assessment Coordinator (BAC)	Approved	Recurrent	75,900	3
Jeffersontown High School	Behavior Coach	Declined	Recurrent	75,900	
Johnsontown Road Elementary	Behavior Coach	Declined	Recurrent	75,900	
Kammerer Middle	Discovering Our Past: SIxth/Seventh/Eighth Grade	Approved	One year	25,000	
Kennedy Elementary Montessori	Mental Health Counselor	Approved	Recurrent	61,795	3
Kenwood Elementary	Reading Recovery - Kenwood Elementary	Approved	Recurrent	67,268	3
Kenwood Elementary	Bellarmine Literacy Project	Approved	Recurrent	33,634	3
King Elementary	Reading Recovery	Approved	Recurrent	18,162	1
Klondike Elementary	English as a Second Language Resource/Goal Clarity Coach	Declined	Recurrent	77,479	
Klondike Elementary	School Nurse	Declined	Recurrent	37,572	
Knight Middle School	Language Arts - Double Blocking	Approved	Recurrent	134,535	3
Knight Middle School	Instructional Coaches	Approved	Recurrent	77,163	3
Labor Management & Employee	OASYS Evaluation system	Approved	Recurrent	163,200	3
Lassiter Middle School	PBIS Coach	Approved	Recurrent	67,268	3
Lassiter Middle School	Cambridge International	Approved	Recurrent	24,975	3
Lassiter Middle School	Sixth Grade Literacy Specialists	Declined	Recurrent	134,535	
Laukhuf Elementary	Bellarmine Literacy Project	Approved	Recurrent	33,634	3

Laukhuf Elementary	Intervention/Acceleration Budget Request	Declined	Recurrent	18,424	
Layne Elementary	Music	Approved	Recurrent	33,634	1
Library Media Services	Science Literacy and ESL Library Resources Update	Declined	One year	500,000	
Lincoln Elementary Performing Arts	Behavioral and Academic Success Coach	Approved	Recurrent	34,203	2
Lincoln Elementary Performing Arts	Reading Recovery Teacher	Declined	Recurrent	67,268	
Lincoln Elementary Performing Arts	Behavioral and Academic Success Coach	Declined	Recurrent	34,203	
Lincoln Elementary Performing Arts	Academic Success Coach	Declined	Recurrent	21,548	
Lowe Elementary School	Bellarmine Literacy Project	Approved	Recurrent	33,634	3
Luhr Elementary	Certified Interventionist	Approved	Recurrent	67,268	2
Maupin Elementary	Priority Staffing	Approved	Recurrent	393,357	3
Mcferran Preparatory Academy	Mental Health Counselor for Social and Emotional Learning	Approved	Recurrent	61,795	3
Mcferran Preparatory Academy	INSTRUCTOR 1-Success Coach	Approved	Recurrent	34,203	3
Meyzeek Middle School	Discovering Our Past: A History of the World, World Geography,	Approved	One year	25,000	
Mill Creek Elementary	Mental Health Counselor	Approved	Recurrent	30,897	3
Minor Daniels Academy	Behavior Coach	Approved	Recurrent	75,900	1
Minors Lane Elementary	Resource Teacher (Behavior Coach)	Approved	Recurrent	75,900	2
Minors Lane Elementary	Literacy Interventionist	Declined	Recurrent	67,268	
Moore Traditional School	School Social Worker	Approved	Recurrent	48,190	3
Moore Traditional School	Agriculture Stipend	Approved	Recurrent	14,564	2
Newburg Middle School	Behavior Coach	Approved	Recurrent	75,900	1
Noe Middle	Reading and Math Intervention	Approved	One year	68,407	
Office of College and Career Readiness	Talent Development Academy - Recurring Costs (A)	Approved	Recurrent	2,137,647	4
Office of College and Career Readiness	Talent Development Academy - One-Time Equipment Costs (B)	Approved	One year	825,400	
Office of College and Career Readiness	Western Early College	Approved	Recurrent	63,900	2
Okolona Elementary School	Student Success Coach	Approved	Recurrent	34,203	1
Okolona Elementary School	Reading Recovery	Declined	One year	67,268	
Okolona Elementary School	3rd Grade Reading Pledge	Declined	Recurrent	67,268	
Okolona Elementary School	Arts Special Area Teacher	Declined	Recurrent	49,105	
Options/Magnet Programs	Optional and Magnet STEM	Declined	Recurrent	68,221	
Options/Magnet Programs	Optional and Magnet Environmental Science	Declined	Recurrent	19,274	
Options/Magnet Programs	Optional and Magnet Visual, Fine, and Performing Arts	Declined	Recurrent	12,642	

Peace Academy School	Peace-Crossroads Expansion	Approved	Recurrent	374,350	2
Pleasure Ridge Park High	Additional Assistant Principal	Approved	Recurrent	109,586	2
Pleasure Ridge Park High	At-Risk teachers (1 English, .5 Math)	Declined	Recurrent	100,901	
Portland Elementary	Reading Recovery and RTA Reading Recovery (District-Wide	Approved	Recurrent	26,907	5
Portland Elementary	Reading Intervention Teacher 2nd-5th (District-Wide Title I Cuts)	Declined	Recurrent	54,487	
Price Elementary	Primary Elementary Interventionist	Approved	Recurrent	67,268	1
Price Elementary	Primary intervention instructional assistant	Approved	Recurrent	26,320	1
Property Management and Maintenance	Centralization of custodians/plant operators	Approved	Recurrent	1,500,037	3
Property Management and Maintenance	Preventative Maintenance Crews	Approved	Recurrent	1,109,257	3
Ramsey Middle School	In-School Security Officer.	Approved	Recurrent	41,578	3
Robert Frost Sixth-Grade Academy	Complete 1:1 Chromebook Integration	Approved	One year	50,000	
Robert Frost Sixth-Grade Academy	Chromebook 1:1 Initiative	Approved	Recurrent	30,000	3
Rutherford Elementary	Reading Recovery	Approved	Recurrent	67,268	3
ST Matthews Elementary	Advance Placement Equity Initiative	Approved	Recurrent	33,634	2
ST Matthews Elementary	Physical Education	Declined	Recurrent	67,268	
Safety and Environmental Services	FIRE EXTINGUISHERS SECOND	Declined	Recurrent	23,000	
Safety and Environmental Services	ASBESTOS OVERTIME	Declined	Recurrent	17,000	
Safety and Environmental Services	PEST CONTROL OVERTIME SECOND	Declined	Recurrent	4,689	
Safety and Environmental Services	SDS BINDER	Declined	One year	2,500	
Safety and Environmental Services	PHASE CONTRAST MISCROSCOPE SECOND	Declined	One year	1,836	
Safety and Environmental Services	UNIFORMS SECOND	Declined	Recurrent	427	
Sanders Elementary	Behavior Coach	Declined	Recurrent	75,900	
Sanders Elementary	Literacy Specialist	Declined	Recurrent	69,684	
Schaffner Elementary	Bellarmine Literacy Project	Approved	Recurrent	33,634	3
Security and Investigations	Security Enhancements for schools	Approved	Recurrent	400,000	3
Security and Investigations	Optimal Security Staffing for Vision 2020	Declined	Recurrent	617,573	
Security and Investigations	Replacement Vehicles	Declined	Recurrent	27,547	
Security and Investigations	Board Meeting Security for SY 17-18	Declined	Recurrent	6,565	
Semple Elementary	Instructor III	Approved	Recurrent	122,448	4
Semple Elementary	Semple Interventionist	Declined	Recurrent	67,268	
Seneca High	Climate and Culture Support: In School Security Officers	Approved	Recurrent	83,156	2

Seneca High	BAC_0.5_Teacher	Approved	Recurrent	33,634	3
Seneca High	Teacher 0.5	Approved	Recurrent	33,634	2
Seneca High	Urban Ag CTE Extended Days	Approved	Recurrent	28,133	2
Shelby Traditional Academy	3rd & 4th Grade Reading Specialist	Declined	Recurrent	67,268	
Slaughter Elementary	Reading Recovery (RR)	Approved	Recurrent	33,634	5
Smyrna Elementary	Improving Health Promotion at Smyrna Elementary	Declined	Recurrent	67,268	
Stonestreet Elementary	Stonestreet Elementary, Math and Science Resource Teacher	Approved	Recurrent	33,634	1
Stuart Middle	Stuart Middle School Redesign Element 1:1 Technology Initiative	Approved	One year	90,720	
Stuart Middle	Stuart Academy Transition Teacher 2	Approved	Recurrent	67,268	2
Stuart Middle	Stuart Middle School Redesign Technology Replacement Cycle	Approved	Recurrent	51,744	2
Stuart Middle	Part Time School Technology Resource Teacher: Stuart Middle	Approved	Recurrent	33,634	2
The Phoenix School of Discovery	School Security	Approved	One year	41,578	
Thomas Jefferson Middle	Professional Learning and Novice Reduction Teachers	Approved	Recurrent	269,070	3
Title I	Summer Literacy Boost	Approved	Recurrent	1,000,000	3
Title I	JCPS/YMCA Summer Learning Collaborative	Approved	One year	150,000	
Title I	CSI - Champion Scholar Investigators	Approved	One year	75,000	
Title I	Kingdom Academy	Approved	One year	35,100	
Transportation Services	Adequate JCPS bus replacement cycle	Declined	Recurrent	4,000,000	
Transportation Services	Replace/Upgrade existing	Declined	Recurrent	700,000	
Transportation Services	VM Shoplift Repair	Declined	One year	250,000	
Transportation Services	VM DEF Fueling Stations	Declined	Recurrent	75,000	
Transportation Services	VM EPA Testing and Cleaning	Declined	Recurrent	50,000	
Transportation Services	Bus Driver recruiting and advertising budget	Declined	Recurrent	42,000	
Transportation Services	Transportation Management Training Program	Declined	One year	10,000	
Tully Elementary	Primary Certified Interventionist	Approved	Recurrent	33,634	1
Waggener High School	Reading Specialist	Approved	Recurrent	77,163	3
Waggener High School	ARC Chairperson Waggener High School	Declined	Recurrent	77,163	
Waggener High School	ACT Scrimmages and Preparation Materials Waggener High	Declined	Recurrent	8,500	
Waller-Williams Environmental	Waller Williams Social Worker 2017-18	Approved	Recurrent	48,190	2
Waller-Williams Environmental	In-school Security Monitor 2017-18	Approved	Recurrent	41,578	2
Waller-Williams Environmental	Waller Williams PBIS/SRT Coach	Declined	Recurrent	67,268	

Watterson Elementary	WIN Instructional Assistants (Interventionists)	Approved	Recurrent	52,640	2
Watterson Elementary	Reading Recovery Teacher	Declined	Recurrent	67,268	
Watterson Elementary	Student Community Liaison	Declined	Recurrent	43,740	
Western Middle	Expanding our magnet program	Approved	One year	10,000	
Westport Middle School	RTI Intervention Support	Approved	Recurrent	80,900	2
Westport Middle School	Behavior Coach	Approved	Recurrent	75,900	1
Westport Middle School	Discovering our Past: A History of the World, World Geography,	Approved	One year	73,200	
Westport Middle School	JCPS Middle School Athletic Hub Support	Declined	Recurrent	67,268	
Wheatley Elementary	Wheatley Reading Recovery/Reading Interventionist	Approved	Recurrent	67,268	3
Wheeler Elementary	Comprehennsive Literacy Learning	Approved	Recurrent	33,634	3
Wilder Elementary	Behavior Coach	Declined	Recurrent	75,900	
Wilder Elementary	STEM Lab Teacher	Declined	Recurrent	67,268	
Wilkerson Elementary	Wilkerson Reading Interventionist	Approved	Recurrent	67,268	3
Wilkerson Elementary	2017-2018 Wilkerson Reading Recovery/Comprehensive	Approved	Recurrent	25,968	3
Wilt Elementary	PLC Support- Itinerant .5	Approved	Recurrent	34,434	2
Wilt Elementary	Closing the Gap Support- 1.5 Instructional Assistants	Declined	Recurrent	39,480	
Young Elementary	International Baccalaureate Magnet Program	Approved	Recurrent	17,310	6
Youth Performing Arts School (YPAS)	In School Security Monitor - YPAS	Approved	Recurrent	41,578	3
duPont Manual High	Teacher to serve At-Risk GAP students	Approved	Recurrent	67,268	3
duPont Manual High	In School Security Monitor	Declined	Recurrent	41,578	

Table 5 Budget requests and approvals of 2017-18

APPENDIX III: APPROVED CENTRAL-OFFICE-INITIATED BUDGET REQUESTS IN 2017-18

Center	Title	Type	Cost	Cycle
AFIF	Additional AFIF funding	Recurrent	500,000	3
Academic Achievement K-12 Region 5	Elementary Behavior Support Sites	Recurrent	508,675	3
Academic Achievement K-12 Region 5	SCM Training Supplement - Districtwide	Recurrent	125,000	1
Academic Services Division	Deeper Learning Infrastructure Support	Recurrent	458,652	3
Academic Support Services	Mental Health Support for Students 17/18	Recurrent	305,385	3
Activities and Athletics	High School Athletic Program Supplement	Recurrent	315,000	5
Activities and Athletics	Middle School Athletic Director Extended Days	Recurrent	112,226	3
Administrator Recruitment and	Leadership Development for Struggling Schools - NISL and AP Leadership	Recurrent	22,500	1
Administrator Recruitment and	Flexible Professional Development and Classified Summer Institute	Recurrent	15,600	1
Communications and Community	Marketing campaign for JCPS/Talent Academies	One year	70,000	
Communications and Community	Website Maintenance	Recurrent	25,000	1
Curriculum Management	Challenger Center at Academy @ Shawnee	One year	95,000	
Curriculum and Instruction	Advanced Placement Fee Gap Coverage	Recurrent	285,882	3
Curriculum and Instruction	REACH Summer Enrichment Program	Recurrent	100,000	5
Curriculum and Instruction	BRIGANCE Early Entrance to Kindergarten Screenings	Recurrent	5,000	1
Diversity, Equity and Poverty Division	District wide Cultrual Competency Training	Recurrent	400,000	5
Diversity, Equity and Poverty Division	Girls' Street Academy	Recurrent	272,070	5
Diversity, Equity and Poverty Division	Street Academy	Recurrent	110,000	3
Diversity, Equity and Poverty Division	Out of school time/after school time tutoring	Recurrent	100,000	5
Diversity, Equity and Poverty Division	Foster Care regulation under ESSA	Recurrent	80,794	1
Diversity, Equity and Poverty Division	Community Schools	Recurrent	50,000	2
ESL	ESL Expansion	Recurrent	3,999,567	1
Early Childhood	FSY 2017-2018 KERA State Funded Preschool Award Rescue	Recurrent	1,076,280	3
Early Childhood	Kindergarten Readiness Summer Camp - July 2017	Recurrent	600,000	3
Labor Management & Employee	OASYS Evaluation system	Recurrent	163,200	3
Office of College and Career Readiness	Talent Development Academy - Recurring Costs (A)	Recurrent	2,137,647	4
Office of College and Career Readiness	Talent Development Academy - One-Time Equipment Costs (B)	One year	825,400	
Office of College and Career Readiness	Western Early College	Recurrent	63,900	2

Property Management and Maintenance	Centralization of custodians/plant operators	Recurrent	1,500,037	3
Property Management and Maintenance	Preventative Maintenance Crews	Recurrent	1,109,257	3
Security and Investigations	Security Enhancements for schools	Recurrent	400,000	3
Title I	Summer Literacy Boost	Recurrent	1,000,000	3
Title I	JCPS/YMCA Summer Learning Collaborative	One year	150,000	
Title I	CSI - Champion Scholar Investigators	One year	75,000	
Title I	Kingdom Academy	One year	35,100	

Table 6 Approve central-office-initiated budget requests of 2017-18

APPENDIX IV: ACADEMIC RETURN ON INVESTMENT (A-ROI)

We are consulting with the Center for Benefit-Cost Studies of Education (CBCSE) at Teachers College of Columbia University for the development of A-ROI. As a result, there might be changes in the final formulation of A-ROI.

FORMULATION

As a general concept, A-ROI is concerned with how much academic or academic-related gain is achieved for how many students and at what cost. Assuming a gain is an increase in the outcome measure[35], a program's A-ROI is defined as[36]

$$A\text{-}ROI = \begin{cases} \dfrac{(Annual\ Budget) * (t_e - t_b + 1)}{\left(Pct_{t_e} - Pct_{t_b}\right) * 100 * \dfrac{\sum_{j=t_b}^{t_e}\left(w_{ece}N_{ecej} + w_{esl}N_{eslj} + N_{gj}\right)}{t_e - t_b + 1}}, & \text{if outcome is categorical} \quad (1) \\ \dfrac{(Annual\ Budget) * (t_2 - t_1 + 1)}{\dfrac{\left(\dfrac{\sum_{i=1}^{N_{t_e}} X_{it_e}}{N_{t_e}} - \dfrac{\sum_{i=1}^{N_{t_b}} X_{it_b}}{N_{t_b}}\right)}{\dfrac{\sum_{i=1}^{N_{t_b}} X_{it_b}}{N_{t_b}}} * 100 * \dfrac{\sum_{j=t_b}^{t_e}\left(w_{ece}N_{ecej} + w_{esl}N_{eslj} + N_{gj}\right)}{t_e - t_b + 1}}, & \text{if outcome is continuous} \quad (2) \end{cases}$$

where,

t_b is the beginning year of the school year when the program is implemented (e.g., t_b=2015 for a program implemented in 2015-16)

t_e is the beginning year of the school year when the program reaches the end of its continuous improvement cycle (e.g., t_e=2017 for a program with an end of cycle year in 2017-18)

X_{it_b} is the baseline outcome of student i in year t_b

X_{it_e} is the outcome of student i in year t_e

N_{t_b} is the number of targeted students in year t_b

N_{t_e} is the number of targeted students in year t_e

[35] If a gain is a reduction in the outcome measure, then the order of the two terms in the two outcome deductions should be reversed. If there is a negative gain, A-ROI will not be calculated.

[36] There are many technical complexities around A-ROI as a valid (unbiased and reliable) index for program funding and change decisions. In the first year of implementing A-ROI, we choose simplicity over complexity, knowing that this definition has limitations. As people become more familiar with A-ROI and the system capacity grows, we will gradually address the limitations embedded in this definition.

N_{gj} is the number of target general education students in year j ($j = t_b, \dots, t_e$)

N_{ecej} is the number of target ECE education students in year j ($j = t_b, \dots, t_e$)

N_{eslj} is the number of target ESL education students in year j ($j = t_b, \dots, t_e$)

w_{ece} is the weight for ECE students

w_{esl} is the weight for ESL students

The interpretation of this definition is, on average, the unit cost associated with one percent gain in the academic or academic-related outcome. Please note that this formulation of A-ROI is an indirect rather than a direct measure of above definition. It captures the true total investment, but does not calculate the true gains by including all students who are impacted[37]. This indirect approach is preferred mainly because it is easy to calculate and still maintains the commensurability. The trade-off is that we lose some accuracy.

DESIGN PRINCIPALS

In essence, developing an A-ROI index is a balancing act between rigor and practicality. The above formulation of A-ROI is based on the following five design principals:

- *Interpretability*
  The A-ROI index should be easy to interpret and understand by stakeholders who usually do not have a strong research background.
- *Manipulability*
  The A-ROI index should not be subject to easy manipulation by stakeholders to gain an unfair or unjustifiable advantage.
- *Commensurability*
  The A-ROI index should allow for comparison between programs using different outcome measures.
- *Validity*
  While not a cost-effectiveness measure, the A-ROI index should make the comparison fair and reliable.
- *Extensibility*
  Considering that our understanding of A-ROI will continue to develop, the A-ROI index should leave room for future improvement without making drastic shift in how the index is calculated.

[37] A direct measure will include all students who are impacted by the investment during the program's implementation. For example, a program has a k-year continuous improvement cycle to reduce Novice percentage. During the three years, the number of target students is N_1, N_2, …, and N_k, respectively; and the number of students moving out of the Novice category is n_1, n_2, …, and n_k, respectively. A-ROI can be formulated as $\frac{(Annual\ Budget)*(t_e-t_b+1)}{\frac{\sum_{i=1}^{k}\frac{n_i}{N_i}}{k}*100*\sum_{i=1}^{k}N_i}$

Assumptions

With the A-ROI defined in equations (1) and (2), we make three major assumptions about the index when using it to compare cost and benefit for budget decisions.

First, the academic or academic-related gain is entirely due to the investment. In other words, there is no natural growth among the students in the outcome and no other factors are impacting the outcome either positively or negatively.

Second, there is a linear relationship between academic or academic-related outcome gain and baseline outcome. That is, a 1% gain is equivalent regardless where the target students start with, low, intermediate, or high.

Third, there is a linear relationship between amount of investment and amount of gain. In other words, a 1% gain from a $100,000 investment in 100 students is equivalent to a 1% gain from a $200,000 investment in 200 students, a 2% gain from a $100,000 investment in 50 students, or a 2% gain from a $200,000 investment in 100 students.

Limitations and Mitigations

A review of the assumptions quickly reveals the limitations of the A-ROI index defined in equations (1) and (2). In reality, all three major assumptions will be probably violated.

First, it is very unlikely a gain in the academic or academic-related outcome can be solely attributed to the investment. Without a study employing rigorous design, we cannot make an inference about the causal relationship between the investment and gain. Given the number investments the district is making, however, it is simply not realistic to conduct rigorous studies for all of them. One way to mitigate this problem is to provide contextual information about what other programs are implemented at the same time that can potentially impact the outcome.

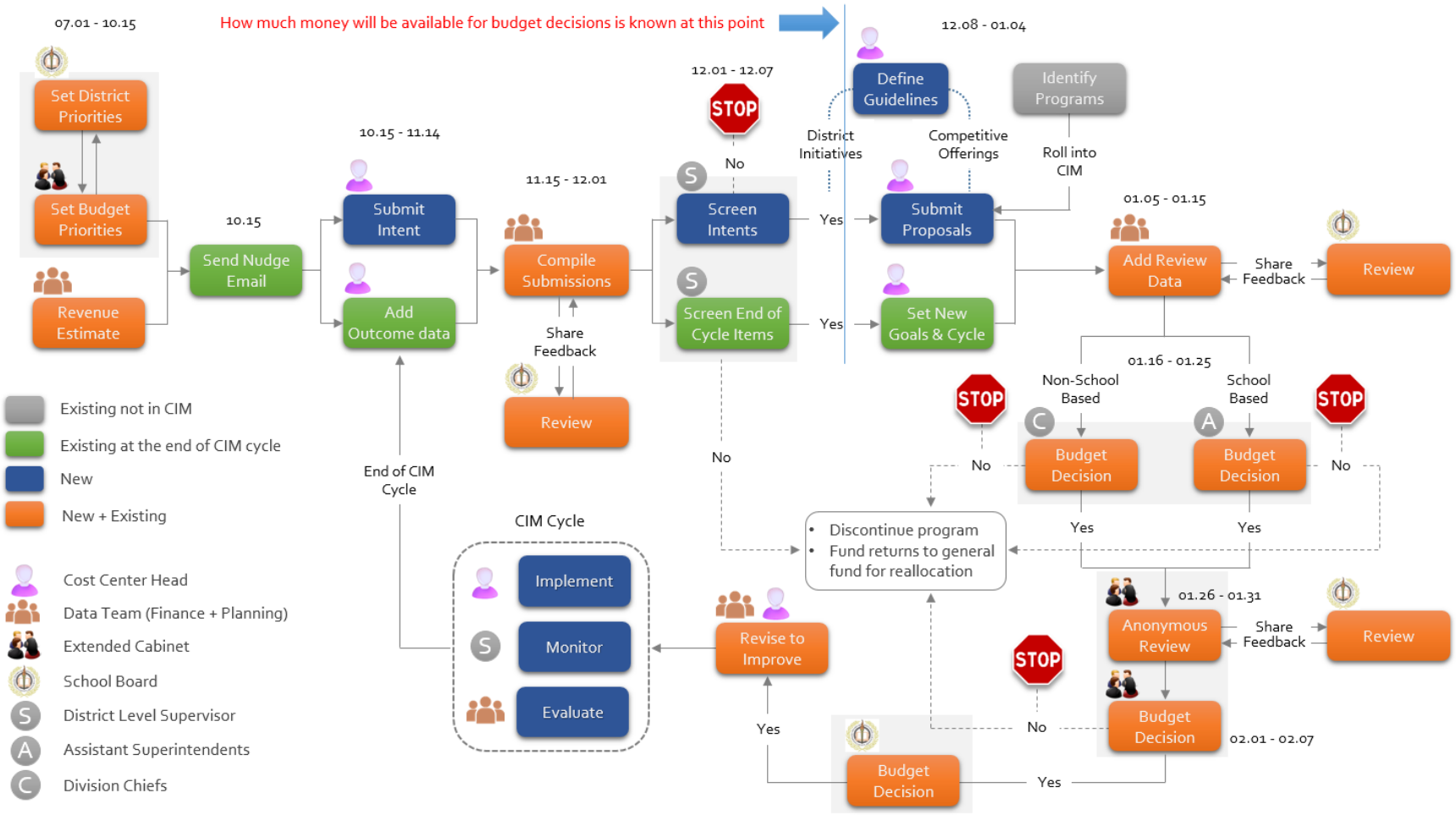
Second, the relationship between academic or academic-related outcome gain and baseline outcome is probably curvilinear rather than linear. Based on the past research, it is likely that academic or academic-related return will decrease as students' baseline outcome increases. In the future, an index can be added to the equations to offset the descending academic or academic-related return when baseline outcome increases, once we learn more about that curvilinear relationship. For now, we can provide baseline outcome data together with A-ROI data so that it can be factored in when making budget decisions.

Third, again, the relationship between amount of investment and amount of gain is probably more complex than linear. At this point, we know very little about that relationship. More research is needed to understand what adjustment can be made when this assumption is violated.

Fourth, random variation in target student is adjusted for by using the average student population size during the continuous improvement cycle years. However, relying on the baseline and end-of-cycle year data only, random variation in academic or academic-related return is not adjusted for. We can apply the same approach to academic or academic-related return by calculating the average of returns over the

years. However, that means increased complexity in the equations and more labor for calculating the index.

APPENDIX V: PROPOSED BUDGET REQUEST AND APPROVAL WORKFLOW



APPENDIX VI: BLP EXPANSION – AN EXAMPLE OF A DISTRICT PROGRAM AS A COMPETITIVE OFFERING

Program Description

The Bellarmine Literacy Project (BLP) is a capacity-building model for developing highly effective teachers of literacy (K-3) with emphasis on deep training through distributed learning and practice. Teacher participate in weekly coursework for two semesters and are provided on-site literacy coaching to ensure effective and consistent delivery of all project elements. Principals participate in the BLP Principals' Fellowship to provide instructional leadership for school-wide literacy instruction.

One of the most crucial elements of the Bellarmine Literacy Project (BLP) is the ongoing, job embedded coaching that needs to occur for teachers participating in the project. In order to provide literacy coaching and support for teachers in the project each school must designate a BLP Coach. This funding will provide 28 (.5) positions to support 28 participating schools.

School Participation Requirements

- 20% of K-3 teachers must participate in Phase 1
- Teacher participation incrementally increases by 20% each year/phase for continous participation in the BLP
- ECE, ELL, and Interventionist are also allowed to participate
- Designated BLP Coach to support, observe, and model for teachers BLP Teachers; oversee implementation of the Diagnostic Assessment and BLP Reading Instruction Delivery Model
- Principal participation in the Principal's Fellowship twice a month
- Teachers will implement the Diagnostic Literacy Assessment System three times during the school year
- Teachers will implement the research-based, culturally relevant reading instructional strategies learned in coursework using the BLP Reading Instruction Delivery Model
- Principal serves as the instructional leader of literacy and communicates regularly with the Literacy Project Coach.
- Teachers agree to stay in a BLP school for a minimum of 3 years or repay the district for the cost of the coursework.
- Participating coaches agree to stay in a BLP school for a minimum of 3 years or repay the district for the cost of the coursework.

Success Metrics and Benchmarks

Across all BLP classrooms, in each school, the average minimum scores must be met by the end of the year:

Kindergarten: DSA KIDS =24, PAT Composite = 50

1st grade: Reading Quotient (DSA = 4, Accumaticity = 40)

2nd grade: Reading Quotient (DSA = 6, Accumaticity = 75)

3rd grade: Reading Quotient (DSA = 9, Accumaticity = 95)

*Reading Quotient = DSA and Accumaticity (equally-weighted metric of 2 critical reading subskills)

Submission Statement

By clicking "Submit", you have read and agree to the School Participation Requirements and Success Metrics and Benchmarks. You also understand that non-compliance may result in the suspension of participation in the BLP.

Evidence Base

A significant factor in helping children succeed is the knowledge of teachers; students who have effective teachers for successive years make greater gains than those who do not (Darling-Hammond, Bransford, & LePage, 2005). Research shows that knowledgeable teachers are central to effective reading instruction. Bond & Dykstra's (1967) seminal report noted "to improve reading instruction, it is necessary to train better teachers of reading rather than to expect a panacea in the form of methods and materials" (p. 416). Sanders & Rivers (1996) revealed quality literacy instruction provided by the classroom teacher as the greatest determiner of a student achievement. Teachers with the reading expertise seem to have the most potential in raising achievement (Reutzel & Cooter, 2008; Snow et al. 2002). Focusing on teacher training is a productive investment (Duffy-Hester, 1999). Reports clarified what reading teachers need to know to teach effectively (Anders, Hoffman, & Duffy, 2000; IRA, 2000; Moats, 1999; Snow, Griffin, & Burns, 2005). Without formal opportunities to develop this knowledge, teachers are likely to be unprepared to teach reading. Interest in teacher quality led to policies emphasizing the importance of PD. Research has shown that teachers need formal opportunities to develop content knowledge. Studies support the need for long-term sustained PD (Kennedy & Shiel, 2010) focused on deepening teacher's knowledge (Borko, 2004; Jetton et al. 2008; Wayne et al. 2008). Research revealed principles for effective PD: on-going, job-embedded, collaborative, reflective, and inquiry-based (Porter, Garet, Desimone, Yoon, & Birman, 2000). Effective literacy coaching is grounded in the elements of effective PD (Russo, 2004; Schwartz et al., 2003; Walpole & McKenna, 2004). Our model (Cooter, 2003) is built from research supporting the value of teacher knowledge, the principles for effective PD, and use of literacy coaching as a best practice for facilitating teacher learning.

APPENDIX VII: GLOSSARY

Academic Return on Investment (A-ROI)

A-ROI refers to academic or academic-related (e.g., student engagement, suspension, kindergarten readiness) return on investment. As a powerful tool, it allows stakeholders to discuss and debate issues as well as make decisions using a common language that is based on data and evidence.

Continuous Improvement Model (CIM)

CIM has two major components: 1) Cycle-based Budgeting process that focuses on success of individual programs and 2) diagnostics that look at programs targeting one certain area for improvement holistically (e.g., human capital, infrastructure, student behavior). So far, we have only tapped into the power of Cycle-based Budgeting.

Cycle-based Budgeting (CBB)

A budgeting model that: 1) sets expectations on deliverables and timeline for investments (both new and existing); 2) allows A-ROI comparisons between investments; and 3) empowers district leaders to make adjustments to resource allocation with less controversy or resistance.

Continuous improvement cycle

With Cycle-based Budgeting, each approved budget request will be assigned with a continuous improvement cycle, which ranges between one and five years. At the end of its cycle, each investment will be reviewed for continued funding support based on A-ROI and alignment with district's priorities.

Time-bound conditional commitment

Cycle-based Budgeting process sets the conditions for any investment to be time-bound (continuous improvement cycle for review) and conditional (continued funding support depends on A-ROI).

Competitive offering

A district initiative as a competitive offering allows: 1) schools with buy-ins and commitment to participate; 2) schools that don't have the buy-ins or readiness to opt out; and 3) initiative owner to have more control over implementation fidelity.

Reset for success

Instead of eliminating an existing program, which is often difficult to accomplish and does not address the still unmet needs, resetting it for success means to roll the program into the Cycle-based Budgeting process to: 1) identify an owner, 2) set expectations on deliverables and timeline.