

Realigning Resources for District Success

Duval County Public Schools Final Report

Jonathan Travers and Kristen Ferris September 2011

Acknowledgment

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About ERS

Education Resource Strategies (ERS) is a non-profit organization dedicated to helping urban school systems organize talent, time and money to create great schools at scale. This report is the culmination of a year of hard work from many ERS staff including: Karen Hawley Miles, Funmi Haastrup, Betty Hsu, Keri Munkwitz, Jura Chung, Elliot Watts, Beth Rabbit, Anna Sommers, Allison Hausman, Coralie DiTommaso, and Justin Burniske.

Cover Photo: Students at Jeb Stuart Middle School represent DCPS at the national "Let's Move!" campaign to fight childhood obesity. Courtesy of Duval County Public Schools.

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EXECUTIVE SUMMARY

Duval County Public Schools (DCPS) is poised to take action today that will lead to serving all students more effectively. Although the challenges are significant, including deep budget cuts, the district made the strategic choice to look thoroughly at how resources are currently allocated and now has a foundation for making decisions that will lead to greater teaching effectiveness, more successful turnaround schools, and targeted attention for students who need it most. This report lays out what has to be done, why and how. It shows that DCPS will have to make tough trade-offs, continue to work hard and to make the most of exceptional community support. It won't be easy, but the return on investment for the students of Duval County and the community more broadly warrants the effort.

Like most school districts in the United States, DCPS has experienced deep budget cuts over the last few years and faces additional cuts in the near future. While dollars are decreasing, expectations for school and student performance are increasing with the transition to common core standards and more robust accountability systems. Duval County, like many districts, also faces a significant achievement gap between higher poverty and minority students and their peers. Rather than do less with a shrinking budget, DCPS must rethink resources to do more, both raising the bar and closing the gap.

Complicating the issue is that DCPS's current resources are both few and inflexible.¹ At \$8.5K per pupil, DCPS is one of the lowest funded districts ERS has studied.² And, DCPS currently spends the lowest share on central management functions and highest share on instruction of peer districts – meaning that closing future budget gaps will be exceptionally difficult without reducing spending on schools in some way. Florida's class size requirement has forced the district to spread resources broadly to support more uniform class sizes, rather than target funding to specific needs. At the school level, principals are forced to invest more in the quantity of teachers vs. the quality of instruction.

Given these constraints, DCPS must aggressively shift resources to maximize the full potential of its existing time, people, and money. Raising the bar for all students while also closing the gap will require improving teaching effectiveness system-wide, and organizing time and staff in new ways that target resources to highest need areas. This report describes how DCPS, even with its low funding level, can reduce costs, rethink resource use, and make limited new investments that will improve teaching effectiveness and overall student performance.

ERS Recommendation Areas

- I. Measuring Teacher Effectiveness
- II. Strengthening Teaching Teams
- III. Targeting Time and Attention
- IV. Leveraging Turnaround
- V. Matching Funding to Need

¹ ERS analysis focused on SY0910. Unless otherwise specified, all data comes from SY0910.

² ERS calculates funding level based on PreK-12 operating expenses, including categorical funding (e.g. Title I).

³ Hanushek, E.A. & Rivkin, S.G. (2010). "Generalizations About Using Value-Added Measures of Teaching Quality." American Economic

² ERS calculates funding level based on PreK-12 operating expenses, including categorical funding (e.g. Title I).

I. Measuring Teacher Effectiveness: Launch leadership development effort to support implementation of new evaluation system, which will then inform hiring, assignment, professional development, career growth and compensation.

The quality of teaching students receive is the single most important school-based factor in whether, how, and how much they will learn. ³ To provide the foundation to ensure that every student has an effective teacher, DCPS must first measure teaching effectiveness accurately. In accordance with Senate Bill 736, DCPS has rolled out a new teacher evaluation tool for the 2011-2012 school year that is a significant improvement upon the previous tool. The district must use this redesign as an opportunity to transform teacher evaluation from a compliance-driven activity used solely for punitive actions to a tool used to raise the bar for teacher effectiveness and drive meaningful improvements in practice. And while transforming the evaluation process will require significant upfront investment in school leadership and other resources, the cost is minimal when compared to the opportunity it creates for the district to restructure human capital resources more effectively. Over the coming years, DCPS can use new effectiveness information to improve its teacher pipeline, better target professional development to teacher need, and ensure compensation resources support district priorities and teacher excellence.

II. Strengthening Teaching Teams: Build highly effective teaching teams that collaborate regularly with expert support by bringing together pieces of DCPS's current >\$100 million investment in instructional support.

Organizing teachers into diverse teams that work together with an instructional expert to analyze data and adjust instruction is another important way to improve teaching effectiveness. DCPS already spends over \$100 million on school-based instructional support; these resources must be brought together to better support highly effective teaching teams. The first steps toward this will be to ensure the teacher contract supports using time for team collaboration, and to build a clear model for how collaborative time should be used. In addition, principals will need support around making more strategic team assignments. Finally, DCPS should utilize existing high-performing teachers as experts to support team collaboration. This will require creating a formal teacher leader role with pay commensurate with increased responsibility. Pay should be funded initially from community resources, and over time from a restructured compensation system. Overall, DCPS can significantly advance teaching effectiveness by strengthening teaching teams primarily through better use of existing resources; no new investment is required over the long term.

III. Targeting Time and Attention: Improve individualization of instruction by scheduling students more flexibly and aligning interventions.

High-performing schools organize resources school-wide through schedules and staffing plans that target additional time and individual attention to those students who need it most and to highest priority subject areas. Making the most of student time and staffing is essential since DCPS students spend less total time in school than other ERS partner districts and schools have fewer staff per student. To do so, DCPS must better differentiate group size, teacher loads (the total number of unique students for which a teacher has instructional responsibility), time, and instructional programs. By offsetting targeted reductions in group sizes and teacher loads in highest need areas with increases in elementary resource and secondary non-core class sizes, schools can increase targeted individual attention within existing resource levels. To better maximize available time, DCPS should improve and expand existing interventions targeting higher needs students. Action is needed to improve the fidelity of existing interventions, expand the menu of interventions available, and provide mechanisms for teacher communication and information-sharing to increase alignment across interventions that a student receives.

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³ Hanushek, E.A. & Rivkin, S.G. (2010). "Generalizations About Using Value-Added Measures of Teaching Quality." *American Economic Review*, 100(2). pp. 267-271.

IV. Leveraging Turnaround: Restructure and increase investment in turnaround schools to attract and develop top talent and better support students' readiness to learn.

The current influx of federal resources and national attention on the subject of turnaround is unprecedented and creates an opportunity and obligation for districts to use information on what works to dramatically increase success rates of low-performing schools system-wide. This will require taking very different approaches to attracting highly effective teachers to turnaround schools and building transformational leadership. It will also require complementing DCPS' current turnaround investments that focus on teaching effectiveness with additional resources that support students' readiness to learn. Finally, DCPS must also be deliberate about tailoring resources and strategy to specific school needs and early indicators of success and failure. This will take improved monitoring tools and a better mechanism for customizing turnaround approach based on data.

V. Matching Funding to Need: Free up resources invested in smaller school size to increase funding based on prioritized need.

Driving sustained and district-wide school improvement requires funding all schools equitably - at levels that match student need. This is particularly important in low-funded districts like DCPS where investment in core instruction is already so limited. In DCPS, the single largest driver in school funding variation after adjusting for difference in student need levels across schools is school size at the elementary level. Overall, DCPS pays a "size premium" of \$26 million for its elementary schools with less than 500 students. While DCPS can reduce the small school spending premium in its current school portfolio by changing school designs and staffing patterns, redirecting a significant portion of the size premium requires school consolidation. Consolidation decisions should be made based on multiple factors including but not limited to cost differentials and overall levels of student performance and growth.

Duval County Public Schools faces a pivotal moment. As standards for academic achievement rise and resource levels fall, the district must build on current efforts and be more deliberate than ever about the way it uses people, time, and money to support student success. Rather than do less with a shrinking budget, DCPS and the Jacksonville community must use this pivotal moment to take bold action, making hard choices to organize resources to ensure both equity and excellence.



INTRODUCTION

Like most school districts in the United States, Duval County Public Schools (DCPS) faces deep budget cuts now and over the next several years. State and local revenues are declining and districts are losing federal stimulus dollars that filled budget gaps in the past. Economic forecasters agree that these tough budget times will not be over soon. This is an unprecedented situation for the U.S. To this point, nationwide per-pupil spending has increased steadily since 1920, declining in only two years. Most of this additional spending has gone to increases in the number of adults in school buildings – staff to student ratios have also steadily increased over this same period. Yet, fewer resources have been used to invest in the talent of teachers and school staff.

While dollars are decreasing, expectations for school and student performance have continued to increase. Florida has joined 42 other states in agreeing to adopt "Common Core" standards, which will significantly raise the bar for student achievement. And, both Federal and State accountability systems have introduced far greater transparency and accountability around results in recent years. DCPS, like many districts, faces an imperative to raise the bar for all, while also closing a significant achievement gap between higher poverty and minority students and their peers. Currently, at the end of 10th grade, only 33% of students county-wide and 18% of students in poverty are proficient in reading. DCPS is in a unique and critical moment in its history. The district must invest more systematically in attracting, leveraging and developing teaching and leadership talent to support the move to higher standards and close the achievement gap. Yet, it must do so with fewer resources.

ERS Partnership

DCPS hired ERS to help identify opportunities to strategically reallocate resources in order to fund priority goals during these tough economic times – in part to reduce the budget gap in the short-term, and more broadly to help DCPS articulate a resource strategy over a longer term. ERS mapped DCPS' current use of people, time, and money through a quantitative analysis of district data pertaining to expenditures, school organization and scheduling, student performance, and staffing. Drawing on experience working with large urban districts around the country, ERS compared DCPS resource use to benchmark data compiled from a group of comparable school districts and to research-based best practices. ERS uses a detailed common coding scheme to ensure comparisons by category reflect real difference and not differences in the way districts report spending, and adjusts for cost of living differences across regions and years. Analysis focused on SY0910 – data, charts and figures are from that year unless otherwise specified. Financial analysis focuses on PreK-12 operating expenses. This includes categorical funding (e.g. Title I) and excludes non-operating expenses such as capital and debt service.

Additionally, ERS conducted informational interviews with top-level staff across most of the district's Central Office departments, visited 18 schools selected to represent a diversity of perspectives on resources use, and facilitated hour-long focus groups/interviews with major district stakeholders, encompassing both internal groups such as school principals and teachers and external groups such as parents, community members, and students.

⁴ Florida Department of Education. (2010). District Reading Demographic Report. Florida Comprehensive Assessment Test. 2009-2010. https://app1.fldoe.org/FCATDemographics/Selections.aspx?reportTypeID=1&level=District&subj=Reading.

⁵See appendix A for ERS coding methodology. In order to compare real dollars across districts, data from the ERS Benchmark Database were adjusted using two methods:

⁻ Inflation: Each district dataset is adjusted using the CPI-U to convert datasets from prior years into 2009–10 equivalents.

Regional cost differences: To adjust for cost differences in various parts of the country, each district dataset is converted to Duvalequivalent dollars, using the Comparable Wage Index calculated and maintained by the National Center for Education Statistics (NCES).

ERS engaged the Superintendent and his leadership team in the analysis and its implications through a series of working sessions and report-outs that began in fall 2010 and concluded in September 2011. This report is a synthesis of major findings and recommendations shared during those sessions.

The Resource Picture in Duval County Public Schools

At \$8.5K per pupil (see Figure 1), DCPS is one of the lowest funded districts ERS has studied.⁶ And, while the district has strategically prioritized resources to schools – spending the lowest share on central management functions and highest share on instruction – people and time are still limited: DCPS high schools have the highest student-staff ratios of comparison districts and secondary students go to school for the least amount of time.

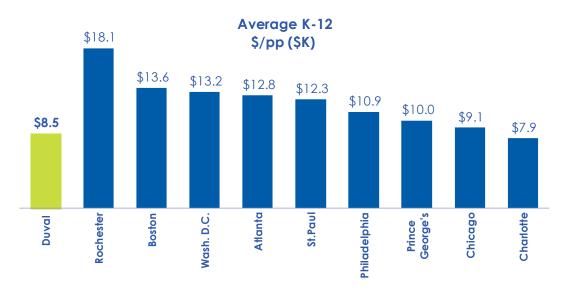


Figure 1: Cross District Comparison of Average K-12 Operating Expenditures Per Pupil

Complicating the issue is Florida's State Class Size Requirement, which mandates that the district maintain maximum core class sizes of 18, 22, and 25 respectively at K-3, 4-8, and 9-12 grade levels. DCPS is forced to invest its limited resources in the quantity of teachers rather than the quality of instruction. Yet, research has shown that improving the quality of teaching has a significantly greater effect on student achievement than small reductions in class size. Finally, because resources must be invested to maintain across the board small class sizes, the system's capacity to differentiate to highest need areas – for example, to significantly decrease class size in selected priority subject areas or for struggling students – is more limited.

⁶ ERS calculates per pupil funding level based on PreK-12 operating expenses, including categorical funding (e.g. Title I).

⁷ Chingos, M. (2011) The False Promise of Class Size Reduction. Washington, DC: Center for American Progress.

The Way Forward

To raise the bar for all students, while also closing the achievement gap, DCPS must realign limited resources to better support teaching effectiveness system-wide, while also strategically targeting dollars to ensure students with farther to go have more support to get there. ERS identified five major areas for realignment of resources:

I. Measuring Teacher Effectiveness

Launch leadership development effort to support implementation of new evaluation system, which will then inform hiring, assignment, professional development, career growth and compensation.

II. Strengthening Teaching Teams

Build highly effective teaching teams that collaborate regularly with expert support by bringing together pieces of DCPS's current >\$100 million investment in instructional support.

III. Targeting Time and Attention

Improve individualization of instruction by scheduling students more flexibly and aligning interventions.

IV. Leveraging Turnaround

Restructure and increase investment in turnaround schools to attract and develop top talent and better support students' readiness to learn.

V. Matching Funding to Need

Free up resources invested in smaller school size to increase funding based on prioritized need.

Within each area, we categorize current resource misalignments based on whether they represent an area for reduced spending, increased investment, or restructuring of current spending. DCPS has three big opportunities to reduce spending: increasing non-core class sizes, restructuring school-based front office roles, and closing and consolidating smaller and lower-performing schools. Total savings will vary based on how DCPS chooses to implement the recommendations in this report and more detail on amounts is included within the discussion of each area of recommendation. These reductions can help close the district's budget gap, but should also be channeled to important investments within each of the five areas above. Additional opportunities for spending reduction are included in Appendix C.

New investments will be required for the district to better maximize the full potential of its existing time, people, and money. To realize the promise of its 8000 teachers, DCPS must invest in the systematic implementation of its new measure of teaching effectiveness, and until teacher compensation resources can be reorganized, fund pay for teacher leaders. To increase efficiency of investments by better matching resources to student need, DCPS must first invest to increase the total dollars in the system that are allocated on the basis of need. These and other resources should then be used to increase time on task and individual attention in highest priority areas, and to ensure turnaround school have strong leadership and interventions in place that address students' readiness to learn.

Finally, existing investments must be restructured to maximize impact through more consistent, high-quality implementation and better alignment between the different components of strategy. Revisions to the teacher contract will be required to better utilize the district's more than \$100 million dollar investment in teacher planning time as a tool to increase teaching effectiveness. In addition, teacher compensation resources, which total almost \$500 million, should be restructured to support both district priorities and teacher excellence. At the school level, changes to schedules and staffing plans that reorganize student grouping and the use of student and teacher time

will enable better use of resources. And, improving schools' resource use in many areas will require restructuring of central resources to better support school leaders' resource allocation decisions.

Given limited funding, DCPS must engage its local funding community to help fund transition to new school models and new ways of working. Its opportunity to do so is unique – a recent report from the Fordham Institute named Jacksonville as one of the top communities in the country for education reform. While acknowledging the challenge of limited public funding streams, authors touted the key asset of "a burgeoning reform-friendly philanthropic community...that aims to establish long-term funding for change."8

⁸ Hess, Frederick, Stafford Palmieri, and Janie Scull. "America's Best and Worst Cities for School Reform: Attracting Entrepreneurs and Change Agents." The Thomas B. Fordham Institute. August, 2010.

REALIGNING RESOURCES IN DUVAL COUNTY PUBLIC SCHOOLS

I. Measuring Teaching Effectiveness

The Facts

The quality of teaching students receive is the single most important school-based factor in whether, how, and how much they will learn. Compelling research shows that children who have an effective teacher three years in a row dramatically outperform peers who have an ineffective teacher for the same period of time. Accurately measuring teaching effectiveness provides the foundation to ensure that every student has an effective teacher. Without good information on how a teacher is performing, it is not possible to give her the support she needs, recognize her for her contributions, or remove her from the school if necessary. A high-quality measure of teaching effectiveness must provide accurate, consistent information that can inform hiring, assignment, development and career rewards.

Realigning Resources

To meet the requirements of Senate Bill 736, DCPS is rolling out a new teacher evaluation tool for the 2011-12 school year. Designed over the spring of 2011, and based on the Charlotte Danielson Framework for Teaching as adapted by Hillsborough County Public Schools, the new evaluation tool is a significant improvement upon the measure previously in place. Where the previous tool often measured compliance, the new framework focuses on establishing a clear and rigorous standard for excellence (see Figure 2). Further, new and struggling teachers will now receive more frequent reviews. And while the 2009-10 evaluation process rated 99.9% of teachers as satisfactory, the new system includes moves from two to four possible performance categories, giving DCPS the opportunity to better distinguish between teacher performance levels.

Figure 2: Comparison between 2010-11 and 2011-12 Teacher Evaluation Tools

Sample of 2010-11 Teacher Assessment Instrument (TAI) Descriptor	Sample of 2011-12 Danielson-based Teacher Evaluation Descriptor
Communicates learning expectation	 The teacher has a dynamic presence in the classroom. The teacher effectively develops students' understanding of the objective by: communicating what students will know or be able to do by the end of the lesson connecting the objective to prior knowledge explaining the importance of the objective referring to the objective at key points during the lesson

Implementation of Effectiveness System: Capitalizing on this redesign will significantly advance teacher effectiveness system-wide in DCPS. First, to ensure that new effectiveness information is accurate and consistent, the district must commit to systematic implementation of the new evaluation tool, in the 2011-12 school year and beyond. The new instrument requires, at a minimum, triple the time that school leaders invest in the current system. DCPS must clearly define its new expectation around the role of school leaders in evaluation, and ensure sustainable teacher-evaluator ratios. In some cases, this will require investing in additional teacher or administrative leadership so that work-loads for evaluators enable high-quality teacher reviews and meaningful feedback.

⁹ Hanushek, E.A. & Rivkin, S.G. (2010). "Generalizations About Using Value-Added Measures of Teaching Quality." American Economic Review, 100(2). pp. 267-271.
¹⁰ Sanders, W. & Rivers, J. (1996) Cumulative and Residual Effects of Teachers on Future Student Academic Achievement. Nashville: University of Tennessee Value-Added Research and Assessment Center, November, 1996.

¹¹ Total evaluator time estimates are based on requirements included in evaluation manuals for 10-11 and 11-12, but should be revised as expectation of evaluator role under the new system is clarified.

Needed investments will span multiple additional areas. A recent report by The New Teacher Project recommended five areas of investment necessary for the successful implementation of any teacher evaluation system based on best practices in states and districts nationwide ¹²:

- 1. Tools and systems to guide and support the teacher evaluation process
- 2. Training for evaluators and district staff
- 3. Communications to key audiences, especially teachers and school leaders
- 4. Monitoring to ensure consistent implementation across schools
- 5. Sustainability of the new system

Hillsborough County's experience in implementation to date should serve as a helpful guide in terms of areas of focus, resources required and lessons learned.

With effective investment, DCPS will have unprecedented access to accurate information on teaching effectiveness that should be used to evolve the entire human capital system. Areas of system improvement include hiring, professional development, assignment, compensation and career growth.

Hiring: Relative to peer districts, more DCPS teachers come from the district's largest hiring source, with close to one third of the district's teachers receiving their degrees from the University of North Florida (UNF). DCPS can use effectiveness data for recent hires to provide greater transparency into overall effectiveness levels across hiring sources, as well as sources' specific strengths and weaknesses. Ultimately, this transparency should enable DCPS to focus hiring on sources that provide higher concentrations of effective new teachers and to provide sources with specific data to help them improve their programs and increase the effectiveness of their graduates.

Professional development: Accurate effectiveness data also creates an opportunity to better target and improve the quality of professional development. While districts often reduce professional development spending in tough budget times, DCPS has made the strategic decision to maintain investment in its most important resource – teaching talent. Expenditures on professional development totaled \$39 million in 2009-10, which was 3.9% of the total budget and an average of about \$5,000 per teacher. This level of investment falls in the middle of the range of spending in districts ERS has studied. Due to low overall funding levels, and the large number of teachers employed by the district due to class size maximums, DCPS must spend a relatively higher percentage of its overall operating budget than many peer districts in order to maintain this level of per teacher spending (see Figure 3).

As in most districts ERS has worked with, professional development resources in DCPS are spread widely across many purposes, and directed by many different providers. Effectiveness data can be used to ensure professional development matches both teacher needs and district priorities and to improve provider accountability. Teachers' Individual Professional Development Plans (IPDPs) should be based on growth areas identified during the new evaluation process. And, effectiveness data should be used to create clear pathways of accountability – professional development offerings should be linked to one or more standards for effectiveness as laid out in the new evaluation tool and should be evaluated based on teachers' development in relevant areas. Where more than one stakeholder is responsible for teacher development in a given area, efforts must be coordinated to ensure resources are maximized.

Realigning Resources for District Success

¹² The New Teacher Project. (June 2011). Smart Spending for Better Teacher Evaluation Systems. Brooklyn, NY.. http://tntp.org/files/TNTP_Smart_Spending_2011_1.pdf

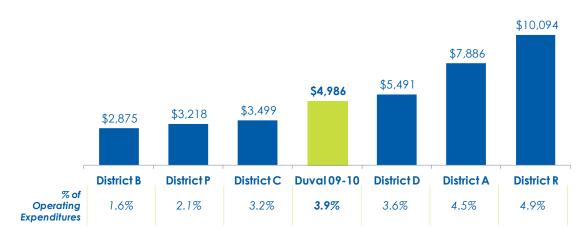


Figure 3: Cross District Comparison of Professional Development Spending per Teacher

Compensation and Career Growth: Finally, effectiveness data can be used to ensure teachers are compensated based on individual skills, contributions, and excellent performance. Currently, 80% of add-ons to teacher base salary in DCPS are based on experience. And, 80% of experience pay goes to the 30% of teachers in the district who have taught for more than 15 years. Yet, research shows that experience after the first three to five years is not correlated with effectiveness. DCPS's teacher workforce is less experienced overall than a number of other districts ERS has studied, with over 50% of teachers in their first 7 years of teaching. Given the current structure of compensation, these teachers will have very little earnings power in the near term, regardless of how well they perform or how much they contribute to their school.

Senate Bill 736 requires that, for teachers hired in 2014-15 or after, DCPS link increases in teacher pay to effectiveness ratings and make salary supplements available based on difficulty of assignment and additional contribution and leadership. This legislation is an opportunity for DCPS to make high impact changes in the existing compensation and career structure. Recent research indicates that performance pay based on narrowly defined increases in student test scores does not significantly impact student achievement. Instead, restructuring teacher pay must be viewed more broadly as a way to ensure that teacher compensation resources, which made up 47% of DCPS's total operating budget in 2009-10, support both district priorities and teacher excellence.

DCPS can accomplish this broader objective by linking compensation to a career path that differentiates roles based on difficulty of assignment and level of contribution, thus rewarding the greatest contributors, placing the best teachers where they are most needed, and attracting candidates with the strongest potential. As is discussed in more detail in the next section, establishing a career pathway that more formally recognizes teacher leadership will allow DCPS to better leverage existing high-performing teachers to increase school-based instructional expertise. In addition, DCPS can better utilize the co-teaching model already in place in many schools by setting up novice and master teacher roles. This would both strengthen the new teacher pipeline and reduce average teacher salary costs (see Appendix C for more detail). In these and other ways, linking compensation to a formalized teacher career path will lead to organizational improvements that are good for both teachers and the broader system. Accurate effectiveness data will be critical to making strategic decisions about teacher advancement along the pathway.

Rivkin, S., Hanushek, E. & Kain, J. (2005). "Teachers, Schools, and Academic Achievement." Econometrica, 73(2), pp. 417-458.
 Springer, M.G., Ballou, D., Hamilton, L., Le, V., Lockwood, J.R., McCaffrey, D., Pepper, M., Stecher, B. (2010). Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching. Nashville, TN: National Center on Performance Incentives at Vanderbilt University.

Measuring Teaching Effectiveness: Summary of Opportunities

Opportunity	Detail	Resource Implications
Invest in successful implementation of teacher effectiveness measure	 Identify resources required for FY12-13 and ongoing through study of Hillsborough, others 	Invest & Restructure
Use effectiveness information to evolve human capital system	 Explore reorganization of teacher pipeline sources over time 	Restructure
	 Reallocate existing professional development resources to improve alignment with teacher need, district priorities 	Restructure
	 Reallocate current compensation resources to invest in effectiveness and contribution 	Restructure



Examples from the Field

Hillsborough County Public Schools (HCPS): In the 2010-11 school year, HCPS rolled out a new teacher evaluation system. Targeted new investments, in part supported by a Gates Foundation grant, have been key to successful implementation. Over one hundred peer and mentor evaluators were hired to support school administrators in conducting evaluations. A six-hour course on the effectiveness system was designed for district staff, and a broader communications effort targeted both teachers and the community. A new data system, the Lawson Talent Management System, will ensure observation data is immediately available to stakeholders. And, the district is working to align all professional development opportunities with the dimensions of teaching effectiveness laid out on the evaluation tool.

Achievement First* (AF): AF's measure of teaching effectiveness (based on a detailed rubric called the Cycle of Effective Teaching) is used throughout the organization to drive improvements in teaching effectiveness. The Cycle is the basis of regular coach observations and feedback, teacher development plans, and teachers' annual review process. Coaching support is based on a pacing guide that sequences teachers' development of the skills included within the cycle.

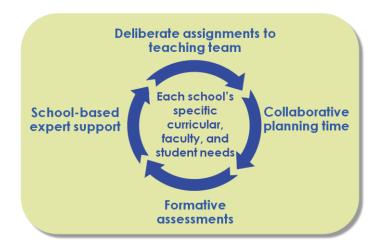
^{*}Achievement First is a network of 20 public charter schools in New York and Connecticut

II. Strengthening Teaching Teams

The Facts

Another critical way systems can increase overall teaching effectiveness is by organizing teachers into highly effective teaching teams. Research consistently shows that teachers value effective collaboration and support of their peers and leadership more than small changes in compensation. Further, ERS studies show that four elements of school-based support – organized around school needs – are necessary for immediate and sustained improvements in teaching effectiveness (see Figure 4). Teachers need to be part of teaching teams that collectively include skills and experience matched to student needs. They need access to accurate and timely assessments of student progress that allow comparison across classrooms and they need time to analyze these data and adjust instruction under the guidance of a qualified coach, teacher leader, or other expert who can help interpret data, model and observe instructional techniques, and provide feedback. Without **all** these elements working together, investments in individual elements are much less effective.

Figure 4: Creating High-Performing Teaching Teams



Realigning Resources

DCPS has already made several important investments that support these four essential elements. However, in many cases the existing structure or limited implementation of investments prevents resources from being fully leveraged within the integrated approach described above. And, at some schools, investment in expert support is missing, diminishing the return on all other elements. Significant instructional improvements require that DCPS focus on restructuring existing investments, deepening implementation, and investing in teacher leadership.

Deliberate teaching team assignments: At the elementary and middle school level, ERS found DCPS principals place their most effective teachers in the grades that are most heavily tested. Because teacher effectiveness data is not currently available, ERS used three proxy measures to estimate effectiveness: percent of teachers that have three or more years of experience, percent of teachers who received the MAP performance bonus (based on 2008-09 data), and percent of teachers who are National Board Certified. All three proxy measures indicated that the most effective teachers were placed in grades three through five in elementary schools and in grade eight in middle

¹⁵ Hanushek, E.A. & Rivkin, S. (2007, Spring). Pay, Working Conditions, and Teacher Quality. The Future of Children, 17(1), 69-86.

¹⁶ Education Resource Strategies (2009). Teaching Quality: The First Priority.

schools instead of in the earlier grades where the foundations of success must be built. Students in grades Kindergarten through two were over 1.5 times less likely to have a teacher who won a performance bonus in the previous year than students in grades three through five (despite the fact that MAP bonuses are awarded in equal proportions across all groups of teachers). Students in grade six were 1.7 times more likely to have a teacher with less than three years of teaching experience than students in grade eight.

At the high school level, proxy data suggest that principals place their most effective teachers in the eleventh and twelfth grades (see Figure 5). This is consistent with what ERS has found in many other districts – at the high school level, upper grade assignments are "earned" over time, with the most experienced teachers opting for them. In addition, principals may be reluctant to place brand new teachers or teachers they perceive to have content knowledge weaknesses in advanced classes more common in the upper grades.

35%
30%
23%

10th

Figure 5: Percent of High School Teachers with Less than 3 Years of Teaching Experience by Grade

While current patterns of team assignment are largely consistent with the pressure of a high stakes testing environment, they also create two undesirable effects. First, the concentration of effective teachers in certain grade levels means teams are less likely to be composed of teachers with varying expertise and complementary skills. Second, higher need students are less likely to be matched with the most effective teachers. While research indicates the importance of early and transition grades, the district's current data on teacher effectiveness, limited as it may be, shows that effective teachers in DCPS are less likely to be placed in grades Kindergarten through two, six, and nine.

11th

DCPS can improve team assignment by building leader capacity and changing current incentives. Central support staff must ensure that principals have access to the right data to make team assignments – including new effectiveness data – and know how to use it to make strategic choices. School supervisors can help by monitoring team assignment data, and targeting further support as needed. Finally, accountability systems should be revised to better balance FCAT-based targets that incentivize short-term test gains with goals around long-term development of teaching effectiveness.

Collaborative Planning Time: Collaborative planning time, when used well, is one of the best uses of teacher time and an important predictor of student achievement.¹⁷ DCPS currently invests just over \$100 million in teacher time outside the student day. This is an important investment that must be leveraged to ensure improved instruction. Yet, currently, time is not consistently used for collaboration. Figure 6 shows that 73% of the investment goes to teacher

Realigning Resources for District Success

12th

9th

¹⁷ Shields, R., & Miles, K. (2008). Strategic Designs: Lessons from Leading Edge Small Urban High Schools. Watertown, MA: Education Resource Strategies.

planning time that occurs both during and immediately before or after the school day. This time is designated in the Duval Teachers' Union Collective Bargaining Agreement as "teacher initiated," which has been interpreted as a barrier to systematic use for expert supported collaborative time. ¹⁸ A smaller share is used for early release time, faculty meetings, and planning days that occur quarterly and before and after the start of the school year. While much of this time is directed by school administration, the way it is used varies across schools.

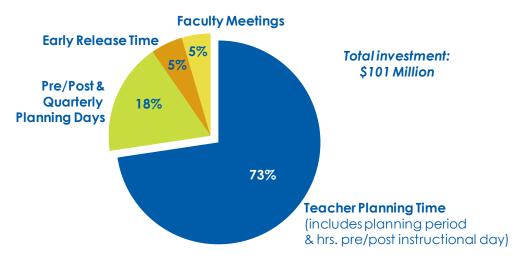


Figure 6: Uses of Teacher Time Outside the Student Day

Source: DCPS teacher contract; school hours

DCPS must restructure the use of teacher time outside the student day so that all teachers have at least 90 minutes of collaborative planning time each week. Ontract language should be clarified or revised to ensure that adequate time is protected for collaboration. The district, teachers and experts must work together to develop clear protocols for effective use of time. Just as important, principals and other experts will need training, follow-up monitoring, and subsequent support around how to lead time effectively.

School-based Expert Support: DCPS has invested \$17 million dollars in school-based coaches, most of who are assigned to support teachers at turnaround schools: coaches support an average of 14 teachers at turnaround schools vs. an average of 42 teachers at non-turnaround schools. This ensures limited resources are prioritized to teachers with the most challenging assignments. However, it also means that many schools lack the expert support necessary to achieve full implementation of the four elements of successful school-based support (see Figure 4), thus diminishing the effectiveness of all other school-based support investments. Furthermore, principals, coaches, and teachers reported during focus groups that existing coaches are not consistently used to support collaborative time.

DCPS must ensure teaching teams in lower needs schools that lack the additional resources for dedicated coaches also have expert support. Leveraging existing teachers to play this role by reducing their course load and/or increasing their compensation is generally less expensive than adding full-time coaches. Reorganizing compensation resources to support a career path as discussed in Section I will ensure the district has necessary resources to invest in differentiated teacher roles over the long-term. However, in the short term, new resources will be required to fund teacher leader pay. Many districts transitioning to new compensation systems have sought community

¹⁸ Collective Bargaining Agreement Between Duval Teachers United and Duval County School Board. 2009-2010. p.35.

¹⁹ ERS has found that teachers ideally need at least 90 minutes of collaborative time per week: Miles, K., & Frank, S. (2009). The Strategic School: Making the Most of People, Time, and Money. Thousand Oaks, CA: Crowin Press.

resources to fund investment in new structures during initial phases when dollars are still tied up in the old system. DCPS should explore whether the Duval County community could play a role in funding teacher leaders in this transition phase.

Finally, existing coaches must be integrated into collaborative time. This will require ensuring that coach job descriptions and accountability structures include responsibility for supporting effective collaborative time.

Formative Assessments: Using collaborative planning time effectively hinges on having powerful and accurate data to bring to bear on student need. DCPS has invested in building a formative assessment system to provide core academic teachers with data on student mastery of standards at least three times a year. However, teachers report that they often have too little time or support to use formative data effectively. Both teachers and administrators also express some doubts about the accuracy of data, though they note that the assessment system has significantly improved since it was initially rolled out. Widespread adoption of new data systems takes time. To fully leverage its investment in formative assessments, DCPS must continue efforts to improve assessment tools and use collaborative time to provide real-time training on how to use the data effectively.

²⁰ ERS Spotlight School Visits, December 2010-January 2011

Strengthening Teaching Teams: Summary of Opportunities

Opportunity	Detail	Resource Implications
Increase leader capacity &	Better support principals w/access to data, training & support	Restructure
improve incentives around effective teaming	Revise principal accountability	Restructure
Ensure time is protected for	Clarify/revise contract language to protect time for collaboration	Restructure
effective collaboration	Develop protocols for effective collaboration	Restructure
	Train principals and experts to lead collaboration & monitor/support	Restructure
Ensure all schools have experts to	Revisit coach job description, selection and accountability to emphasize role in collaboration	Restructure
support collaboration	Define teacher leader role and invest in pay for additional responsibility (6-8M per year w/ salary increase of 8-10K per teacher leader & 5 teacher leaders/school)	Long-term, restructure; short-term, invest



Examples from the Field

Devonshire Elementary School, Charlotte Mecklenburg Schools: Teachers at Devonshire plan collaboratively with their grade level team for 45 minutes per day while students attend specials classes (e.g. art). Every session is led by either the literacy or math facilitator, who works intensively with teachers to plan lessons, examine student data, and improve their teaching skills. Sessions are highly structured, with set agendas designed by the principal and expert facilitators. Essentially all lesson planning, assessment development and data analysis occur during collaborative time.

Chicago Public Schools, Office of School Improvement (OSI) High Schools: Academic Department Chairs, teacher leaders who head school-wide content areas, lead collaborative planning time at OSI High Schools. All core content area teachers meet two times per week for 90 minutes to develop and analyze assessments and plan instruction, once as an academic department team (e.g. math), and once as a smaller course team (e.g. Algebra 1). Meetings agendas are designed by the Assistant Principal for Curriculum and Instruction in collaboration with the OSI support team.

III. Targeting Time and Attention

The Facts

In addition to investing to improve teaching effectiveness, ERS has found that high-performing schools use two other common strategies to organize resources:

- 1. Create targeted individual attention and personalized learning environments
- 2. Organize and use time strategically, linking learning to student needs

Individual Attention: High-performing schools use individual attention to maximize instruction from highly effective teachers in the most important subjects, and to meet individual student needs across the spectrum of student performance. ²¹ As discussed in Section II, highly effective teachers individualize instruction for all students every day by using collaborative time to plan instruction based on formative assessment data and other indicators of student need. This section will address how resources are organized school-wide through schedules and staffing plans to target individual attention to those students who need it most and to cover highest priority subject areas.

Two measures of a teacher's capacity to devote individual attention to students are class size and teacher load (the total number of unique students for which a teacher has instructional responsibility). While research indicates that decreasing class sizes incrementally for all students and/or subjects has limited effects on student achievement, high-performing schools often invest to dramatically reduce class sizes in highest priority subject areas and for highest need students. Teacher loads are reduced as group sizes are lowered, but these schools further reduce loads in targeted areas (usually English Language Arts (ELA) and math) by doubling or tripling the amount of time students spend with a particular teacher. For example, students might spend double time in ELA or math or one teacher might deliver instruction in more than one subject (e.g. ELA and social studies are integrated into a humanities block).

Time: Finally, the high-performing schools ERS has studied vary the amount and use of time to meet student and pedagogical needs and ensure all students meet a rigorous academic standard. Students with farther to go might spend more time during school on a particular subject (e.g. receive double time in math in place of one elective class) or receive additional support during after-school time. What happens during additional time is carefully matched to need through regular monitoring and adjustment to ensure students receive instruction on the right skills, from highly effective teachers, and through methods that are appropriate to their learning styles.

Realigning Resources

Individual Attention—Secondary Schools: DCPS secondary schools do not differentiate class size to increase individual attention for high needs subjects, grades or student groups. Group sizes are very similar across grades and core and non-core subjects and only incrementally smaller for remedial instruction (see Figure 7 for secondary class size by subject). Nor does DCPS appear to leverage teacher expertise in the core subjects by assigning the best teachers larger groups with novice teachers receiving smaller groups. Perhaps more importantly, teacher loads are high and similarly steady across students and subjects, at about 150 in high schools and 120 in middle schools. These levels are significantly higher than teacher loads ERS found in a study of high-performing urban high schools

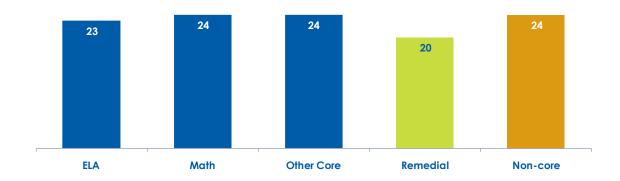
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²¹ Shields, R. & Miles, K.H (2008).

²² Chingos, M. (2011).

and result in teachers being less likely to know their students well.²³ Furthermore, students experience a huge jump in teacher load – and therefore a likely reduction in individual attention – as they enter middle school. Elementary school teacher loads in the upper grades are most likely to average about 40 students vs. 120 in the sixth grade.²⁴





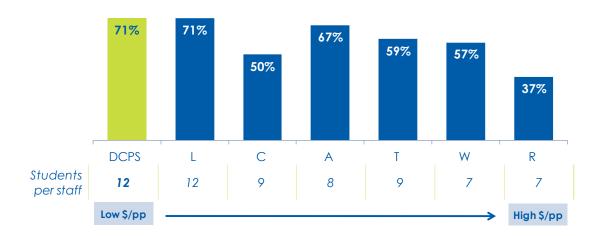
DCPS must reorganize resources to decrease class size and teacher loads at the secondary level in highest priority areas. Many districts free staffing to increase individual attention within core instruction by repurposing positions previously dedicated non-instructional support. However, DCPS, with a secondary student-staff ratio of 12:1, has fewer adults in its school buildings and therefore a smaller opportunity to restructure roles than most other districts ERS has studied. That said, DCPS secondary schools have comparatively high numbers of front office staff. A typical high school of 2000 in Charlotte Mecklenburg Schools (CMS), for example, has six front office staff, compared to 14 at a similar high school in DCPS. Staffing follows the same pattern at the middle school level, where a typical school of 1250 would have five front office staff in CMS and 10 in DCPS. Restructuring roles to reduce front office staff at the secondary level by 25% would free up over \$3.8 million for increasing individual attention or for other priorities. Were staff to be reduced 50% to a level closer to that in CMS, savings would total \$7.7 million.

Another way to free resources to provide individual attention is by improving utilization rates of instructional staff – essentially, increasing the amount of time teachers spend providing instruction vs. planning or other duties. DCPS' opportunity in this area is even more limited. Teachers currently teach for six of the seven periods in the school day. In fact, compared to peer districts, DCPS deploys the largest percent of instructional staffing resources to provide General Education classroom instruction during any given period (see Figure 8).

²³ Shields, R. & Miles, K. (2008). *Strategic Designs: Lessons from Leading Edge Small Urban High Schools*. Watertown, MA: Education Resource Strategies.

²⁴ ERS Spotlight School Visits, December 2010-January 2011





Due to limited opportunities to restructure staff roles or improve teacher utilization, decreasing class size in some areas will require increasing it in others if resource levels are to be held constant. The state class size requirement restricts principals from raising class sizes in any core subject beyond 22 in grades six through eight and 25 in grades nine through twelve. However, DCPS is currently investing in non-core class size at a level similar to core. Increasing non-core class sizes by two in grades six through twelve would free \$5.3 million or about 84 teacher full time equivalents (FTE). These resources could be devoted to creating targeted individual attention as well as addressing other high priorities, such as freeing up additional planning periods for teacher leaders to support collaboration.

To be clear, one of the typical drivers of smaller non-core class sizes is a school's offering of a broad array of electives and vocational pathways. Common approaches to non-core class size increases often result in a narrowing of these offerings. However, through the strategic use of online offerings, and greater sharing of non-core teachers across schools (to enable schools to offer under-enrolled classes on a semester or rotation-basis), DCPS high schools may be able to achieve this increase while maintaining a diverse set of non-core courses.²⁵

Teacher loads will decrease somewhat in any area where class size is reduced. But, schedule changes that combine courses with one teacher or lengthen time in targeted subjects are required to significantly reduce teacher loads. For example, DCPS could reduce teaching loads to 60 (one-third their current size) for remedial ELA students by having the same teacher teach ELA and remedial reading.

Decisions around staffing and scheduling are usually made at the school level by principals and teachers. DCPS' central office can better support schools around this decision-making by creating staffing and scheduling templates that re-allocate resources from non-core subject areas to support lower group sizes and teacher loads in high needs areas. School leaders should also receive increased training, as well as support and monitoring, around staffing and scheduling to ensure targeted individual attention.

Realigning Resources for District Success

²⁵ Other strategies observed in other districts include: assign core teachers to teach one or more non-core sections, partner with local universities & community colleges to increase non-core offerings, use extended day for non-core enrichment options.

Individual Attention—Elementary Schools: At the elementary level, because students tend to spend most of their day with one homeroom teacher, there is less flexibility to create formal scheduling structures that lower class sizes for certain subjects or student groups. However, ERS has found that high-performing elementary schools use flexible grouping to constantly change group size - grade-level teams of teachers use data to regroup students across homerooms based on skill mastery. Students who need more attention are placed in smaller groups with teachers skilled in teaching the concept at hand, while students who are learning at a more independent level are placed into larger groups. Intervention teachers are often used to push into certain groups of students to lower group size even further. Deep understanding of individual teacher strengths and weaknesses enables school leaders to target teaching expertise where it can have the greatest impact.

Currently in DCPS elementary schools, skill-based grouping occurs primarily *within* classrooms, limiting opportunities for targeted individual attention. And, additional staff dedicated to intervention is uncommon. As at the secondary level, DCPS can improve elementary individual attention by providing templates that model creative staffing of homeroom teachers and intervention teachers for flexible grouping. Also similar to secondary schools, resources can be redeployed by increasing non-core class size. Elementary school students tend to go to resource classes (such as Art, Music and P.E.) in their homeroom groups, so resource class sizes remain at homeroom classe levels. If students from multiple homeroom classes were pooled for resource classes (e.g. four homeroom classes go to three resources classes), schools could reallocate resources currently tied up in non-core subjects to create targeted lower group sizes. Reducing elementary resource FTE by 25% (e.g. increasing class size in Kindergarten through grade three from an average of 17 to 23 for resource classes) would free \$4.3 million or about 70 teacher FTE that could be redirected to early intervention support for struggling learners or paying and developing teacher leaders.²⁶

Time: At just 6.25 hours per day and 1125 hours per year, DCPS middle and high school students spend less time in school than students in any other district ERS has studied (see Figure 9). Elementary student time, at 1150 hours per year, is in the mid-range of benchmark districts, which tend to average a lower number of annual hours at the elementary level. According to ERS research, increasing time on task is one of the first reforms enacted by leading edge schools when given flexibility from union and other regulatory constraints.²⁷ Once the budget situation improves and raising teacher salary is possible, DCPS should extend the school day to increase instructional time.

²⁶ Informed by this analysis first shared with district leadership this winter, DCPS is already experimenting with pooling resource classes in selected elementary schools for this school year. Based on experience and lessons learned, opportunities for further reallocation should be explored in the next budget cycle.

²⁷ Shields, R & Miles, K.H. (2008).

MS/HS average: 1190 **Philadelphia** 1,279 **Leading Edge Schools** 1,276 Pittsburgh 1,274 **Baltimore** 1,230 Denver 1,229 **PGCPS** DC "Leading Edge" HS average: 1276 **Rochester** Seattle Milwaukee Duval: 1,125 hours = 180 days x 6.25 hours a day **Boston** Duval 1,125 1,200 1,000 1,050 1,100 1,150 1,250 1,300

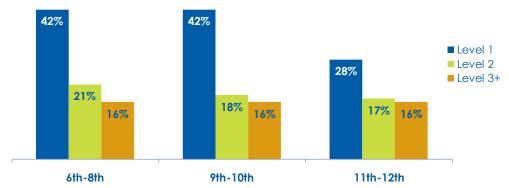
Figure 9: Total Student Hours per Year (Middle and High School only)

Source: ERS benchmark database and TR3 database

Note: ERS' analysis of the use of existing time focuses on secondary schools; a similar analysis of time in elementary schools was not possible because accurate course schedule data is less detailed at the elementary level.

Given the limited time in the current school day, DCPS must be all the more diligent about ensuring that students who are behind have time to catch up. Currently, middle and early high school students performing at lowest levels spend more time on reading and math. But, other struggling students seldom receive additional time. For example, most students in grades six through ten who enter at Level 1 in reading must take a daily 90 minute remedial reading block that effectively triples the time they spend on ELA, but just 25% of 9th graders who score at Level 2 in reading spend any additional time on reading. Figure 10 shows the percent of time students spend in ELA, broken out by their incoming performance level on the state's reading test (Levels 3 and above are considered "proficient" on state standards).





Ultimately, student achievement results show that non-proficient students (Levels 1 and 2) are not advancing to proficiency at high enough rates, and too many Level 3 students slide backward to non-proficiency. Figure 11 shows the achievement level growth of 9th graders who enter high school at Levels 1, 2, and 3 in ELA. Other grades and subjects follow a similar trend.



Figure 11: \$Y0910 ELA Achievement Level Growth by ELA Incoming Performance Level (9th Grade)

Source: ERS analysis of 0809-0910 DCPS FCAT data

These results indicate that in order to reach and maintain the achievement levels defined as proficient by the state, DCPS will have to rethink the interventions provided during additional time, as well as the amount of additional time struggling students in Levels 2 and 3 receive.

Improving the use of existing intervention time requires three sets of actions. First, DCPS must address the fidelity of implementation of existing programs. For Read 180, the district's main reading intervention program, schools have made a concerted effort to ensure that teachers who teach the intervention class have received the proper training. That said, based on focus groups with teachers and other school staff, it appears as though there is significant variation in how the intervention is delivered across schools and classrooms. Second, DCPS should expand the menu of possible interventions such that students for whom existing interventions don't work have access to instruction that matches their needs. Currently, though Read 180 aims to catch Level 1 readers up in one year, 63% of 6th graders remain in Level 1 and therefore are required to take the course again the following year. The recent addition of the Plugged Into Reading intervention program serves as a complement to Read 180, though with each new program comes the need for additional training and capacity to implement with fidelity. Third, as discussed above, DCPS should consider staffing and schedule changes that reduce teaching loads in sixth and ninth grades for ELA and Math remedial students.

To increase the amount of time on ELA and math for Level 2 and 3 students, approaches targeting these students should also be added to an expanded menu of interventions. In the past several years, many core teachers have received training on teaching reading within their respective content areas. One way to quickly increase time on

ELA for Level 2 and 3 students would be to deepen day-to-day implementation of this training across core classrooms.

Especially as the menu of interventions is expanded, it is critical to focus on alignment in order to maximize resources. Teachers, students, and parents in focus groups reported that remedial blocks often seem disconnected from core instruction. For example, an English teacher may know that a student struggles with a particular skill, but does not know whether or how the student might be receiving support on this skill in his reading intervention class. After-school and credit recovery supports are similarly disconnected from one another and core instruction. This lack of communication and coordination constrains teachers' ability to take joint responsibility for student success. And, with teacher loads of 150, the expectation that teachers coordinate and manage instruction across interventions is more than a tall order.

In ERS' experience with other urban districts, individualized student intervention plans naming measurable student learning targets that are shared across staff providing instruction and/or intervention have been key tools to align resources. For example, Cincinnati Public Schools creates whole school and individual learning targets to which each teacher and provider of instruction or services commits. All providers jointly review progress and adjust targets regularly with expert leadership support. DCPS's existing academic intervention plan can be leveraged more fully to serve a similar purpose. Staff sharing students should also share time that is dedicated to discussing student progress.

Targeting Time and Attention: Summary of Opportunities

Opportunity	Detail	Resource Implications
Increase targeted	 In high-need areas, group students flexibly and reduce group sizes and teacher loads 	Restructure & Invest
individual attention	 Free up resources through: Restructuring front office roles (reducing 25% FTE saves \$3.8 M) Increased ES resource and SS non-core class size (↑ SS by 2 & ↓ ES resource staffing by 75% saves \$9.6 M) 	Reduce Costs
	 Improve support for principals around individual attention strategies (scheduling & staffing templates, training, support & monitoring) 	Restructure
Improve and expand	Improve fidelity of implementation for existing interventions	Restructure
interventions, while ensuring alignment	Expand menu of interventions	Restructure
	 Increase alignment across interventions 	Restructure



Examples from the Field

East High, Denver Public Schools: East High has focused on reducing the achievement gap by adopting a Response to Intervention Program (RTI). Academic Skills Classes (ASCs) are a key aspect of RTI. Struggling students are assigned to an ASC, receiving a second block of time in math, English, social studies, or science that is designed to provide remediation in a smaller group setting. There are 25 sections of ASC school-wide, and ASC and regular classroom teachers for any given course are paired, coordinating lesson planning and debrief.

Ashley Park Elementary, Charlotte Mecklenburg Schools: In Ashley Park's "family model," all teachers on a grade level share joint ownership of students, grouping them flexibly based on need. For example, the two third-grade teachers share responsibility for all 40 third-grade students, and work together to design the day around student needs, co-teaching where appropriate or dividing the students into different size groups for different lessons. Special education teachers, teaching assistants, tutors and facilitators join in for core subjects, so group sizes at any given time can vary from two students to more than 30.

Cincinnati Public Schools (CPS): CPS creates whole school and individual learning targets to which each teacher and provider of instruction or services commits. All providers jointly review progress and adjust targets regularly with expert leadership support.

IV. Leveraging Turnaround

The Facts

Schools and districts have been trying for years to improve persistently low-performing schools, yet the report card on sustained improvement is decidedly mixed. And, success has most often been isolated to individual schools. While these success stories have created important information about changes that might be needed system-wide, few, if any, school systems have been able to drive such change at scale.

The current influx of federal resources and national attention on the subject of turnaround is unprecedented, and creates an opportunity and obligation for districts to use information on what works to dramatically increase success rates of low-performing schools system-wide. Turnaround efforts will not result in wide-spread, sustainable change without fundamental shifts in the way districts evaluate need and match resources to support those needs. Districts must develop capacity to meet four essential conditions of success with regard to the use of people, time, and money²⁸:

- 1. How much: Ensure resource levels match school and student need
- 2. **Who:** Attract top talent to serve highest need students
- 3. What: Prioritize resources to mission critical intervention areas
- 4. **How:** Ensure use of resources are flexible to school and student need and continuously analyze data to determine need initially and ongoing

The first condition will be analyzed in detail in the next section, as it pertains to but also extends beyond the turnaround environment. The remaining three will be discussed here.

Realigning Resources

Top talent—attracting highly effective teachers to turnaround schools: As in the teaching effectiveness analysis discussed in Section III, ERS' analysis of the distribution of talent across schools relied on proxy measures of effectiveness: percent of teachers with three or more years of experience, percent of teachers earning a MAP performance bonus, and percent of teachers who are National Board certified. Proxy measures all indicate that turnaround schools have a smaller share of highly effective teachers compared to other DCPS schools. Middle school students attending turnaround schools, for example, are over two times as likely to have a teacher in her first three years of teaching as students attending schools that are not turnaround. The pattern is similar at elementary and high school levels. In fact, 40% of DCPS's highest poverty schools have more than 30% new teachers vs. only 9% of its lowest poverty schools. This gap is the largest of comparable districts that ERS has studied.

DCPS invested \$2.4 million in bonuses in 2009-10 to try to reverse this trend, attracting greater numbers of highly effective teachers to turnaround schools. Teachers and other staff at turnaround schools were eligible to receive bonuses of \$2,000-\$3,000 per year for three years. Yet, the bonuses drew few teachers. Almost three-quarters of recipients in 2009-10 were already teaching in turnaround schools in 2008-09. Just 11% transferred from non-turnaround schools or schools outside the district. And, perhaps even more important, Figure 12 shows that these

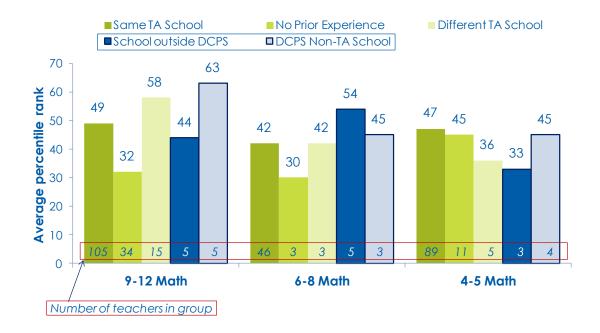
Realigning Resources for District Success

²⁸ Adapted from 5 steps to turnaround included in: Baroody, K.. (2011). *Turning Around the Nations Lowest-Performing Schools: Five Steps Districts Can Take to Improve Their Chances of Success.* Washington, DC: Center for American Progress; Education Resource Strategies. (2010). Turn Around Schools: District Strategies for Success and Sustainability. Watertown, MA.

²⁹ DCPS's deliberate decision to assign TFA corps members to high poverty schools doesn't materially affect this distribution as they represented just 0.7% of all teachers in DCPS in SY0910.

transferring teachers (highlighted in blue in the graph) did not appear to be significantly more effective than those already teaching at turnaround schools.





As districts around the country grapple with similar issues, both research and emerging successes point to the fact that attracting top talent to turnaround schools will require incentives broader than pay. Research shows that working conditions are equally or more important than pay increases in attracting teachers to challenging assignments.³⁰ Programs designed over the last several years in Boston, Chicago, Charlotte, and Pittsburgh are building teams of teachers that take on the turnaround challenge together and in partnership with a strong leader. Teachers receive additional training specific to the turnaround environment. And, turnaround positions are viewed as prestigious opportunities to do the most challenging work. In most programs, teachers also receive additional compensation, but this is just one part of a more comprehensive package.

Broadening incentives to teach in turnaround schools through a team-based assignment approach linked to prestige, strong leadership, and relevant training would better leverage resources already being spent on bonuses, and better match high-performing teachers with the most challenging assignments. For the most part, additional resources required would be minimal – resources already being spent could be realigned to more closely support team-based assignment. One important opportunity for realignment is the restructuring of bonus funds to target teachers attaining the highest performance levels on the new teacher evaluation tool, and to better align with this team-based approach. Increasing turnaround teacher prestige can likely be accomplished at little additional cost to the district with the engagement of community partners. New resources will be needed to ensure every turnaround school has a strong leader. This is discussed further below.

³⁰ Hanushek, E.A. & Rivkin, S. 17(1), 69-86.

Top talent—building transformational leadership: A transformational leader is a critical factor in attracting high-performing teachers and more broadly is a key part of a successful turnaround approach. DCPS's strategy to ensure turnaround schools have strong leaders has to date relied upon transferring effective leaders internally – from higher-performing schools, or from other turnaround schools that have showed early success. Such transfers are so common that over 25% of 2009-10 turnaround principals were new to their schools. But, data suggest that the district's leadership bench is not deep enough for this strategy to affect long-term and district-wide improvement. Not only have new turnaround school leaders not consistently experienced success in their new assignments, but also the performance of the schools from which those leaders have transferred consistently drops in the year after their departure. On average, schools that new turnaround principals exited dropped just over one letter grade (from a B/B+ to a C) on the state's FCAT accountability system.

Creating sustainable improvement across the district's portfolio of schools will require increased investment in the pipeline for turnaround leadership. There must be enough strong principals in the system such that leadership tenure at any given school is long enough to drive lasting organizational improvements. DCPS already has a leadership development program targeting internal candidates. The district must evolve or complement this program to ensure that it is targeting the highest potential candidates both internally and externally, developing them as quickly and thoroughly as possible, and providing relevant training on competencies specific to the turnaround environment.

Attracting great turnaround leaders who are able to drive sustainable results will also require evolving the principal job to better position leaders for success. Current turnaround principals describe a job characterized by tight accountability for fast results, but also note many constraints around approach that come from the district, the state, and Federal programs such as School Improvement Grants. Principals report spending too much time satisfying reporting requirements and addressing constant operational challenges at the expense of more strategic work such as renewing building culture and serving as instructional leaders. In addition, one-year accountability for results drives leaders to spend time on quick fixes versus sustainable school improvement.

Other districts have addressed similar challenges by improving both central and school-level leadership support. Typically, one central point-person or team with autonomy to respond to the needs of principals plays a blocking and tackling role for turnaround schools, facilitating all communication with district offices, synthesizing disparate requirements into one comprehensive model, and freeing schools from requirements where possible and appropriate based on unique needs. Chicago, Cincinnati, and Miami, among other urban systems, are implementing such an approach. At the school-level, districts have invested in a strong support team for principals. In Miami-Dade County Public Schools, for example, assistant principals serve as instructional leaders within the core academic departments, a Positive Behavior Support coach takes the lead on discipline issues, and at the high school level a Vice Principal is dedicated to managing operational challenges.³¹

In addition to improving support for principals, DCPS must also lengthen their accountability window to the extent possible within the current state and Federal accountability environment.³² Research on promising turnaround practices indicates that efforts that attain sustainable results often do not show significant improvements in student achievement for two to three years.³³ Charlotte Mecklenburg Schools provides a good example of an approach to longer-term accountability – in its Strategic Staffing Schools, principals are not held accountable for showing results until three years from a school's entry into turnaround status. Early indicators such as attendance, suspensions and progress assessments are closely monitored.

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³¹ Vitti, N. (2011, July). Assistant Superintendent at Miami-Dade Public Schools. (K. Ferris, Interviewer).

³² Duval might also explore lobbying the state to change provisions around turnaround accountability timelines.

³³ School Turnaround Group, Mass Insight Education (September 2010). Evaluating School Turnaround: Establishing Benchmarks and Metrics to Assess School Turnaround.

Prioritizing resources to foundational intervention areas: One of ERS' findings from work across school districts is that some interventions are more powerful – and thus more important – than others. Figure 13 lists the most powerful of the typical interventions in turnaround schools. They are divided into foundational interventions that should be first-priority for school turnaround and interventions that are complementary (i.e. important but only effective if the foundational interventions are in place first).³⁴

Figure 13: Summary of Strategic Turnaround Intervention Areas

Category		Investment
Foundational	Strong leaders	Ensure a transformational leadership team skilled in turnaround in every school
	Expert teacher teams	Provide support and development for teacher teams to continuously improve instruction
	Help for at-risk students	Guarantee baseline health, social, and emotional support to students to ensure readiness for learning
	Productive school culture	Invest school community in high expectations for learning and behavior
Complementary	Additional time and attention to accelerate learning	Expand instructional time Provide small group instruction or tutoring for struggling students that is integrated with core instruction
	Central support	Provide additional school supervisory support and attention

DCPS' additional investment in turnaround and School Improvement Grant (SIG) schools totals about \$26 million. Figure 14 divides this total investment into the six areas described in the chart above. Over three quarters of total dollars go to foundational areas, with most of the remainder invested in additional time (particularly important in DCPS given its short school day). Yet, the majority of dollars are invested in teaching effectiveness, with underinvestment in the other foundational areas of strong leadership and interventions addressing students' readiness to learn (school culture, social emotional and health supports for at-risk students).

The importance of investing in an improved pipeline and support for school leaders are discussed above. Anecdotally, conversations with turnaround leaders, teachers and students suggest that social, emotional, and health supports for high risk students, as well as investments in building a strong school culture, are also needed. DCPS should assess school needs in these areas and invest in proven strategies appropriate to need. Dollars for additional investment can in part be found through increasing school funding based on student need as discussed in the section below. However, DCPS should also tap into resources available within the community – support for at-risk students, school culture, and leadership are three areas in which districts are often able to successfully mobilize community support.

³⁴ Adapted from: Education Resource Strategies. Turnaround Schools: District Strategies for Success and Sustainability.

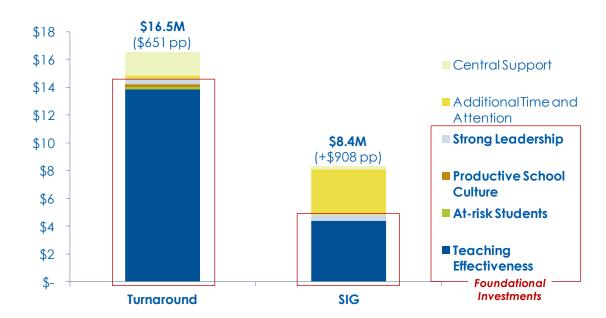


Figure 14: DCPS Investment in Turnaround by Strategic Intervention Area

Source: ERS analysis of DCPS 2010-11 Turnaround and SIG funding

Ensuring flexibility to need: While ERS has found that some interventions are more powerful than others, the strategic use of resources requires that activities within intervention areas are customized to unique school needs, both initially and ongoing. While all turnaround schools require strong leadership, for example, some schools may have existing high-capacity leadership staff, while others will need to bring in talent from outside. The degree of intervention needed and appropriate approach will vary according to student need, teacher and leader capacity, and existing school practices. Resources must be flexible to support the customization of approach based on these differences. Furthermore, research from the private sector has found that only about 30% of turnaround efforts succeed. This means resources must also be responsive to a continuous cycle of improvement that uses early indicators of success to analyze what is working and adjust course.

Within the six intervention areas described in Figure 13 most resources are tied to specific activities. Within teaching effectiveness alone, resources fund over 10 different activities, from increased district coaching to a turnaround teacher institute, to Saturday professional development. And, different pools of resources have different managers who devise strategy and oversee implementation. This structure limits the alignment of resources to a comprehensive school design that is customized to need and makes adjusting course to respond to evidence of success and failure more difficult.

The flexibility of resources varies across different activities. For example, schools receive funds for tutoring that can be used for different approaches to academic intervention – some schools provide after-school support and others fund push-in teachers during the school day. But, resources devoted to Saturday teacher development sessions are less flexible. The content for sessions is standardized so that all teachers receive the training on the same skills, whether or not those skills align with priority teacher or school needs.

Districts around the country are struggling with the right balance between requiring implementation of strategies with proven success and providing flexibility to allow customization and innovation. While there is no single model that shows what this balance should be, DCPS can begin by building a better set of tools and processes to inform

the customization of its approach across schools. To better assess need initially and monitor success over time, the district must strengthen data systems, identifying indicators, ensuring data capture, and building staff capacity to analyze and act on data. And, principals should collaborate with district leadership through one touch-point to make strategic adjustments to turnaround interventions based on data.

Leveraging Turnaround: Summary of Opportunities

Opportunity	Detail	Resource Implications
Attract top talent to turnaround schools and position for	 Broaden incentives for teachers and leaders to work in turnaround schools using team-based assignment approach 	Restructure
success	 Invest in leader pipeline with turnaround specific competencies 	Invest
	 Increase principal supports and extend accountability timelines 	Restructure
Increase investment in students' readiness to learn	 Includes investment in social-emotional and health supports, school culture 	Invest
Improve tools and processes to	Develop early indicators of need and results & build staff capacity to analyze and act on data	Restructure
better customize resources & strategy	Improve processes to customize interventions based on data	Restructure



Examples from the Field

Strategic Staffing Initiative (SSI), Charlotte Mecklenburg Schools (CMS): SSI attracts CMS' top talent to turnaround by creating prestigious teams of high-performing teachers and leaders that are assigned to turnaround schools together. This gives teachers the opportunity to work with a great and trusted school leader and be part of a teacher team they respect rather than having to "go it alone."

University of Virginia's (UVA) Turnaround Specialist Program: UVA's Turnaround Specialist Program partners with school districts to train principals and district staff leading turnaround efforts. Training topics include the fundamentals of successful turnaround, model systems and processes (e.g. a 90 day plan), and characteristics of a supportive district turnaround environment.

Boston Public Schools (BPS) Turnaround Strategy: BPS has developed a comprehensive needs assessment to ensure turnaround strategy and resource levels are customized to each school's need. The assessment is based on a variety of need factors and is used to inform interactions between schools and central in the areas of support, interventions, autonomies and progress monitoring.

V. Matching Funding to Need

The Facts

Districts do not intentionally allocate resources to schools and students in inequitable ways. However, the organizational structures, allocation models, policies, and practices in many districts, combined with state-level categorical funding practices, produce inequitable results, with some of the neediest schools receiving much less than other schools and their students being shortchanged. Districts must ensure that students with greater learning challenges, such as students significantly below grade level, Special Education students, English Language Learner (ELL) students, and students in poverty, receive additional resources to support their needs.

Equitable funding has important implications for the success of district improvement efforts. Highest need students are often concentrated in lowest-performing schools and yet funding attached to turnaround efforts is usually temporary. Without sustained increases in funding tied to student need, schools may struggle to maintain performance gains made while in turnaround status. Furthermore, many schools with significant populations of high needs students do not receive turnaround funding and yet must still effectively respond to the needs of their student populations. Driving sustained and district-wide school improvement requires funding all schools at levels that match student need.

Realigning Resources

Figure 15 shows the additional dollars districts allocate to students with higher needs, relative to the average level of funding for a typical general education student. For most student types shown, DCPS's spending on additional allocation is at the low end of the range of comparison districts. And, because the base level of general education funding is also among the lowest, higher needs students in DCPS are allocated far fewer resources overall than students in most other districts ERS has studied. For example students in poverty, at a weighting of 1.1, are allocated an average of \$7,480 per student in DCPS, while per-pupil allocations in other districts range from \$7,800 to \$15,510 (adjusted for regional cost differences).

Figure 15: Cross District Comparison of Per Pupil Expense Weights by Student Type

	District	General Education Student (\$K)	Poverty Students	English Language Learners	ESE (VE/ Inclusion Students)	ESE (Self- Contained Students)
Low Overall \$/pp	Charlotte	\$6.6	1.2	1.3	1.8	3.0
Ï	Duval	\$6.8	1.1	1.4	1.8	3.3
	Chicago	\$6.0	1.3	1.1	2.6	4.2
	PGCPS	\$7.9	1.1	1.2	2.3	3.7
	Philadelphia	\$8.1	1.3	1.3	2.3	3.4
	St.Paul	\$7.8	1.4	1.1	2.4	4.4
	Atlanta	\$10.8	1.1	1.4	2.4	3.4
	Wash. D.C.	\$11.0	1.1	1.3	2.3	3.9
↓	Boston	\$9.7	1.1	1.3	1.7	3.7
High Overall \$/pp	Rochester	\$14.1	1.1	1.5	2.0	2.4

The Florida state environment is an important driver of DCPS's lower need-based funding allocations. Lower state funding levels mean there are fewer total dollars to allocate, and class size maximums require these limited dollars to

be spread more evenly across schools and students. Given these circumstances, it is imperative that DCPS allocate limited funding to schools in a way that maximizes possible differentiation based on need.

ERS methodology examines per pupil funding levels across schools in a way that controls for differences in funding based on student need. Even after controlling for these differences, there is still significant variation in per pupil funding across schools within each school level, with the highest funded schools receiving about two times the level of funding of the lowest funded schools (see Figure 16). The biggest drivers of these differences are school size and turnaround status. As discussed above, additional dollars allocated based on turnaround status are largely funding strategic interventions that deliberately address school and student need. Extra spending in smaller schools, however, is not deliberate and does not align with the broader instructional strategy.

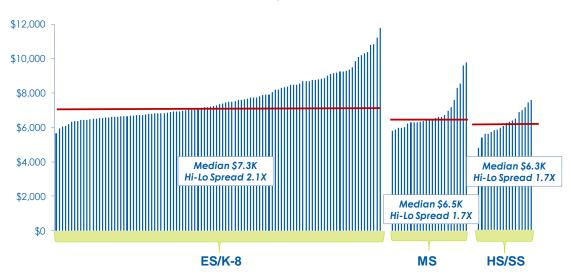


Figure 16: School Attributed Dollars Per Pupil (Adjusted for Student Need)

Figure 17 shows how spending varies with size at the elementary level. As in most districts ERS has studied, while spending is relatively flat among the large schools on the right of the chart, it begins to rise significantly for schools smaller than 500 students. Most of DCPS's additional spending on school size is isolated to the elementary level as middle and high schools tend to be larger – 96% of schools below 500 students are elementary schools. And, DCPS is spending more of its limited dollars on smaller school size than other similarly funded districts. Twenty-two percent of elementary schools are below 500 students in Charlotte, for example, compared to 48% in DCPS.

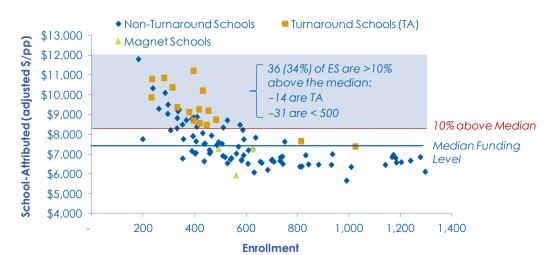


Figure 17: School Allocated Dollars Per Pupil vs. Enrollment (Elementary and K-8 only)

Figure 18 quantifies the spending differential between small and large schools in DCPS. Separate calculations are shown for turnaround and non-turnaround schools to better isolate additional spending on size from deliberate spending on turnaround strategy. Overall, across the four groups of schools shown in the bottom half of Figure 18, DCPS pays a "size premium" of \$26 million for its elementary schools with less than 500 students.

Figure 18: Small School Spending Premium Calculations

Elementary School Spendir	ng by Size Gro	oup				
	Turnaround		Not Tu	Not Turnaround		
School Size Group	Avg	. \$PP	Av	g. \$PP	# Not TA schools	#TA schools
1000+	\$7.4K		\$	6.6K	10	1
500-999	\$7	.7K	\$	6.9K	43	1
350-499	\$9.3K		\$	7.7K	25	9
<350	\$10.2K		\$	9.2K	12	5
Small School Spending Premium						
	<350	350-499	<350	350-499		
Difference from \$/ Pupil in 500-999 group	\$2.6K	\$1.6K	\$2.3K	\$0.8K	Total "size premium" = \$26.1 million	
Total enrollment	1,386	3,808	3,395	10,469		
Total size premium	\$3.6M	\$6.1M	\$7.9M	\$8.5M		

A deeper look at this small school spending premium shows that 60% of extra dollars go to instructional costs, with the remainder split between other functional areas (see Figure 19). Smaller schools tend to have smaller class sizes because additional staffing needed to meet class size mandates is split across a smaller number of students in each grade level. Higher per pupil spending in resource subjects (art, music & physical education) also contributes to the higher level of spending on instruction overall. Per-pupil costs for any staff allocated on a per school basis are higher in small schools than larger schools (e.g. principal, coaches, special education teachers). Finally, schools are often small due to under-utilization (actual enrollment compared to a school building's total physical capacity), driving up per-pupil operations and maintenance costs.

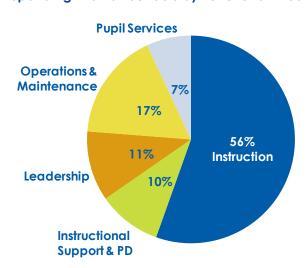


Figure 19: Additional Spending in Small Schools by Functional Area

DCPS can reduce the small school spending premium in part by changing school designs and staffing patterns. Multi-grade, skill-based classrooms would reduce the need for additional staff to meet class size mandates, though this would be dependent on highly effective teachers who were knowledgeable of each grade level's content capable of differentiating appropriately. Pooling homeroom classes for resource subjects, as discussed above, would increase class sizes in special subjects like art and music. And, by using part-time staff, or splitting staff across multiple smaller schools, DCPS could reduce inequity in staffing allocations. Finally, DCPS should consider strategic non-compliance with class size mandates in cases where paying state class size penalties would be less expensive than hiring additional staff just to comply with mandates.

However, to effectively redirect a significant portion of its \$26 million investment in smaller schools to more deliberate strategies designed to meet student need, DCPS must take on school consolidation. While savings will vary based on specific circumstances, DCPS should expect to save roughly \$500K per elementary school.³⁵ That said, it is important to stress that decision-making on consolidations should be driven by attempts to increase the number of DCPS students who are served in highly effective schools and improve and overall levels of student performance and growth, not just by efforts to better match funding with student need.

Realigning Resources for District Success

³⁵ Savings projection is based on ERS' experience in other districts and projected savings associated with the elimination of non-variable school-based positions. Note that additional revenue earned from leasing or other usage of the physical property will vary widely across locations and is not included in this amount.

Matching Funding to Need: Summary of Opportunities

Opportunity	Detail	Resource Implications
Free up resources invested in smaller school size to increase funding based on need	 Reduce small school premium through mixed grade classes, resource class pooling, part-time staffing, non-compliance with class size mandates (savings amounts variable) 	Reduce Costs
	 School consolidation (save ~500 K per school) 	Reduce Costs



Examples from the Field

Baltimore City Public Schools System's (BCPSS) Weighted Funding Formula: In 2009, BCPSS moved to a weighted student funding formula to ensure all schools have adequate funding to meet the needs of students. Funding is allocated based on a weighted enrollment count that gives more weight (and therefore more funding) to students with greater need. Weights account for the special education status, poverty status, and the incoming performance of each cohort of students.

CONCLUDING THOUGHTS

Duval County Public Schools faces a pivotal moment. As standards for academic achievement rise and resource levels fall, the district must build on current efforts to be more deliberate than ever about the way it uses people, time, and money to support student success. District and community leaders can also use this moment to begin transforming DCPS' work force and school organization to take advantage of the advances in measuring and understanding learning, the more flexible and team oriented 21st century work force and new technology that enables organization of data for decision making and providing individualized instruction. The first steps will be to invest in a robust measure of teaching effectiveness and more increased support for teaching teams, and to find new ways to organize time and staff to target resources to highest need areas.

Implementing the recommendations in this report will require taking action across district processes and structures. Central office support staff will work to clearly define improved models for the strategic use of resources. Teachers and leaders will receive training and support around these new models. And, policies and processes around the use of time, people, and money within the teacher contract and future budget cycles will evolve. These changes will require the Board and district senior staff to make difficult and painful choices, particularly in the areas of resource reallocation and cost reduction. Success will also require the community to act in partnership with the district, contributing additional resources and bringing unique expertise to bear. Appendix B provides a more detailed roadmap for stakeholders of specific changes to district policies, processes, and structures that implementation of these recommendations will require over time.

Rather than do less with a shrinking budget, DCPS and the Jacksonville community must use this pivotal moment to take bold action, making hard choices to organize resources to ensure both equity and excellence.

WORKS CITED

- Baroody, K. (2011). Turning Around the Nations Lowest-Performing Schools: Five Steps Districts Can Take to Improve Their Chances of Success. Washington, DC: Center for American Progress; Education Resource Strategies. (2010). Turn Around Schools: District Strategies for Success and Sustainability. Watertown, MA.
- Chingos, M. (2011) *The False Promise of Class Size Reduction*. Washington, DC: Center for American Progress.
- Education Resource Strategies (2009). Teaching Quality: The First Priority.
- Florida Department of Education. (2010). District Reading Demographic Report. Florida Comprehensive Assessment Test. 2009-2010.
- Hanushek, E.A. & Rivkin, S.G. (2010). "Generalizations About Using Value-Added Measures of Teaching Quality." *American Economic Review*, 100(2). pp. 267-271.
- Hanushek, E.A. & Rivkin, S. (2007, Spring). "Pay, Working Conditions, and Teacher Quality." The Future of Children, 17(1), 69-86. Education Next.
- Hess, Frederick, Stafford Palmieri, and Janie Scull. "America's Best and Worst Cities for School Reform: Attracting Entrepreneurs and Change Agents." The Thomas B. Fordham Institute. August, 2010.
- Miles, K., & Frank, S. (2009). The Strategic School: Making the Most of People, Time, and Money. Thousand Oaks, CA: Crowin Press.
- The New Teacher Project. (June 2011). Smart Spending for Better Teacher Evaluation Systems. Brooklyn, NY. http://tntp.org/files/TNTP Smart Spending 2011 1.pdf
- Rivkin, Sl, Hanushek, E. & Kain, J. (2005). "Teachers, Schools, and Academic Achievement." *Econometrica*, 73(2), pp. 417-458.
- Sanders, W. & Rivers, J. (1996) Cumulative and Residual Effects of Teachers on Future Student Academic Achievement. Nashville: University of Tennessee Value-Added Research and Assessment Center, November, 1996.
- School Turnaround Group, Mass Insight Education (September 2010). Evaluating School Turnaround: Establishing Benchmarks and Metrics to Assess School Turnaround.
- Shields, R., & Miles, K.H. (2008). Strategic Designs: Lessons from Leading Edge Small Urban High Schools. Watertown, MA: Education Resource Strategies.
- Springer, M.G., Ballou, D., Hamilton, L., Le, V., Lockwood, J.R., McCaffrey, D., Pepper, M., Stecher, B. (2010). Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching. Nashville, TN: National Center on Performance Incentives at Vanderbilt University.
- Vitti, N. (2011, Jully). Assistant Superintendent at Miami-Dade Public Schools. (K. Ferris, Interviewer)
- (2009-2010). Collective Bargaining Agreement Between Duval Teachers United and Duval County School Board.

APPENDIX A: ERS Methodology Overview

Inflation-adjusted Dollars: In order to compare real dollars across districts, data from the ERS Benchmark Database were adjusted using two methods:

- Inflation: Each district dataset is adjusted using the CPI-U to convert datasets from prior years into 2009-10 equivalents.
- Regional Cost Differences: To adjust for cost differences in various parts of the country, each district dataset is converted to Duval County-equivalent dollars, using the Comparable Wage Index calculated and maintained by the National Center for Education Statistics (NCES).

K-12 Operating Expenses: Our analysis focuses on K-12 operating expenses.

- "Operating Expenses" are defined as the district's total expenses for ongoing operations, excluding debt and capital.
- "K-12 Expenses" are defined as the operating expenses excluding non-K-12 expenses such as adult education and child development.

ERS recodes the "use" and "function" of all budget lines in each district



^{*}Includes research, evaluation, and assessment, student registration/assignment and attendance tracking.

**Includes school and non-school based management and support for programs serving special populations (e.g., SWD, EL, Voc Ed., Alternative); Source: ERS knowledge management

Adjusting for student type: We adjust student enrollment by weighting the student population based on district spending patterns, in essence converting all students to General Education equivalent units.

If District X is spending:

\$10,000 - Regular Education \$15,000 - Special Education



The "weights" are then:

Regular Education = 1.0 Special Education = 1.5 [Each Sped student = 1.5 Reg Ed]

Example: School A and School B both have 100 students, but School A has a budget of \$1.25m and School B has a budget of \$1.05m. Equitable?

School A

Enrollment Adjustment:

Regular Ed: $50 \times 1.0 = 50$ Special Ed: $50 \times 1.5 = \frac{75}{1.00}$ Adjusted Enroll: 125

Cost Per Pupil equals:

\$1,250,000/125=\$10,000

School B

Enrollment Adjustment:

Regular Ed: 90 x 1.0 = 90 Special Ed: 10 X 1.5 = 15 Adjusted Enroll: 105 **Cost Per Pupil equals:** \$1,050,000/105 = \$10,000

Conclusion: Adjusting enrollment reveals that School A is not being overfunded and School B is not being underfunded

APPENDIX B: Summary of Implications for District Policies, Processes, and Structures

As DCPS moves forward in taking action to implement the ERS recommendations, stakeholders should expect to see the changes manifest in the following areas:

- 1. Central roles and responsibilities
- 2. Increased or restructured professional development/capacity building
- 3. School supervision and support strategy
- 4. Development of the SY1213 (and subsequent) budgets
- 5. DTU collective bargaining agreement
- 6. Partnerships with the community

Central roles and responsibilities will have to shift to enable central office departments to take on the following work:

Change required for Implementation of Report Recommendations	Recommendation Area
Engage partners to invest in implementation of teacher evaluation, identifying additional resources needed through study of Hillsborough and others	Measuring Teaching Effectiveness
Explore reorganization of teacher pipeline sources over time based on effectiveness information	Measuring Teaching Effectiveness
Develop clear protocols for collaborative planning time	Strengthening Teaching Teams
Better articulate vision for effective teaming and ensure principals have access to relevant data	Strengthening Teaching Teams
Define teacher leader (and revisit coach) job description, selection criteria & accountability to emphasize role in supporting collaboration	Strengthening Teaching Teams
Revise principal accountability to incentivize longer-term development of teaching effectiveness in addition to shorter-term FCAT success	Strengthening Teaching Teams
Create scheduling and staffing templates that model targeting individual attention and time based on need	Targeting Time and Attention
Expand menu of available interventions for struggling students	Targeting Time and Attention
Better articulate vision for creating alignment across student interventions	Targeting Time and Attention
Broaden incentives for teachers and leaders to work in turnaround schools using team-based assignment approach	Leveraging Turnaround
Create staffing plans for turnaround leadership that ensure principals have high quality and consistent teams of support to take on turnaround challenge	Leveraging Turnaround
Extend accountability windows for turnaround principals to be consistent with research on expected timelines for turnaround results	Leveraging Turnaround
Engage partners to increase investment in turnaround leadership (see leader training below) and interventions supporting students' readiness to learn	Leveraging Turnaround
Improve indicators of individual turnaround schools' needs and early results and improve processes to customize investments based on data	Leveraging Turnaround
Consolidate schools to free up resources to increase need-based allocations and increase the number of students enrolled in highly effective schools	Matching Funding to Need

Increased or restructured professional development/capacity building for teachers, instructional experts, and/or school leaders will be required in the following areas:

Change required for Implementation of Report Recommendations	Recommendation Area
Improve alignment of teacher professional development with teacher need (as indicated by effectiveness data), district priorities	Measuring Teaching Effectiveness
Training for principals and experts around effectively leading teacher collaboration based on p developed for use of collaborative time	Strengthening Teaching Teams
Training for principals around:	
Effective teaming	Strengthening Teaching Teams
Scheduling and staffing models that target individual attention and time based on need	Targeting Time and Attention
Ensuring alignment across student interventions	Targeting Time and Attention
Training for teachers and/or instructional leaders around improving fidelity of implementation of interventions (e.g. Read 180), as well as successfully implementing any new interventions as men expanded	Targeting Time and Attention
Evolve and/or complement existing school leadership training programs to ensure availability of quality training on turnaround specific competencies for existing school leaders and both internated external school leader candidates (principals and other members of school leadership teams)	Targeting Time and Attention

School supervision and support strategy will have to shift to increase support and monitoring in the following areas:

Change required for Implementation of Report Recommendations	Recommendation Area
Increased monitoring and support for principals and experts around effectively leading teacher collaboration based on protocols developed for use of collaborative time	Strengthening Teaching Teams
Increased support and monitoring for principals around:	
Effective teaming	Strengthening Teaching Teams
Scheduling and staffing models that target individual attention and time based on need	Targeting Time and Attention
Effectively monitoring and improve fidelity of implementation of intervention models (e.g. Read 180)	Targeting Time and Attention
Ensuring alignment across student interventions	Targeting Time and Attention
Reducing small school premium through mixed grade classes, resource class pooling, part-time staffing, non-compliance with class-size mandates	Matching Funding to Need
Revise turnaround cluster role to ensure schools (1) have only one point of central contact that is empowered to make decisions, and (2) see only one set of aligned mandates without distinction between federal, state, and district	Leveraging Turnaround

The development of the SY1213 (and subsequent) budgets should support/enable the following changes:

Change required for Implementation of Report Recommendations	Recommendation Area	
Reallocate compensation resources over time to increase investment in effectiveness and contribution (including additional pay for teacher leaders who support team collaboration), shifting dollars from experience pay	Measuring Teaching Effectiveness & Strengthening Teacher Teams	
Reduce front office staff in secondary schools by restructuring roles	Targeting Time and Attention	
Support smaller schools to reduce small school premium through mixed grade classes, resource class pooling, part-time staffing, non-compliance with class-size mandates	Matching Funding to Need	
Reallocate resources from small school premium to increase allocations based on student need	Matching Funding to Need	
Change Title I allocation policy to smooth funding allocation cliff between highest need schools and next tier	Appendix C	
Reduce a portion of most expensive classes to median cost of class	Appendix C	
Leverage co-teaching model to lower average teacher salary costs & improve novice teacher professional development	Appendix C	

The Collective Bargaining Agreement with the DTU should be reviewed and potentially revised to ensure it supports the following:

Change required for Implementation of Report Recommendations	Recommendation Area
Reallocate compensation resources over time to increase investment in effectiveness and contribution (including additional pay for teacher leaders who support team collaboration), shifting dollars from experience pay	Measuring Teaching Effectiveness & Strengthening Teacher Teams
Protect at least 90 minutes per week of time for effective teacher collaboration	Strengthening Teaching Teams
Leverage co-teaching model to lower average teacher salary costs & improve novice teacher professional development	Appendix C

Partnerships with the community should be leveraged to increase district capacity in the following areas:

Change required for Implementation of Report Recommendations	Recommendation Area
Support successful implementation of teacher evaluation, including additional investments required to effectively transition from old to new system	Measuring Teaching Effectiveness
In the short-term, as the district transitions to a revised compensation system, support pay for teacher leaders who support teacher team collaboration	Strengthening Teacher Teams
Support investments in turnaround leadership and interventions addressing students' readiness to learn	Leveraging Turnaround
Increase prestige of teacher assignments to turnaround schools	Leveraging Turnaround

APPENDIX C: Other Opportunities

Reduce a portion of most expensive classes to median cost of class: The per student cost of delivering a class at the secondary level varies significantly across courses in DCPS. While the majority of classes (63%) cost below \$500 per student annually, nine percent cost over \$800 or more per student. Higher costs are mostly driven by lower class sizes; in small classes the teacher's salary is divided over a smaller number of students. Non-core classes, including Driver's Education, ROTC, Art, Music, Computer Literacy, and Vocational/Career courses, are more likely to be expensive. For example, eighteen percent of Art and Music classes, and 16% of Vocational/Career classes are over \$800 per pupil, compared to seven percent of math classes. Yet, because these non-core categories make up a smaller share of the total courses offered in the district, 70% of the total courses over \$800 per student in the district are in the core subjects.

DCPS could reduce the number of classes at high per student costs in a variety of ways. First, it could set a "class size minimum" and not allow classes to be offered without the minimum number of students enrolled. Or, alternative delivery models are another way to reduce costs. Students could take courses virtually, or school could partner with community agencies to provide some non-core offerings at lower costs. Each technique comes with tradeoffs, and so one solution will likely not work best in all situations. Reducing 25% of the most expensive courses at the high school level to the median cost of class would save \$300,000. If savings are pursued primarily in non-core areas, there is significant overlap between this opportunity and any potential savings from reducing non-core class size described above.

Change Title I allocation policy to smooth funding allocation cliff between highest need schools and next tier: In the 2009-10 school year, all elementary schools at or above 62% poverty were allocated Title I funding; those below this threshold were not. While Title I funding is a critical tool to ensure funding levels match student need, the current allocation policy based on a single cut-point means that two schools with populations of students with very similar needs may receive very different levels of funding. A school of 1000 students at 61% poverty, for example, would receive significantly fewer dollars based on need than a school of similar size but with 62% of students in poverty. This is an issue not only across schools, but also within schools over time. As a school's population changes marginally from year to year, if it crosses the cut-point, it will see its resource level change significantly though the needs of its students has not.

To increase stability and predictability of funding for schools near the cut-point, DCPS can modify its Title I allocation policy to graduate allocations more smoothly across poverty concentrations. For example, DCPS could lower the poverty threshold for initial Title I eligibility to 60% and while also increasing the per pupil allocation amount across schools in different poverty ranges (e.g. \$X per pupil for 0-60% poverty; \$1.1X for 60-70% poverty, 1.2X for 70-80% poverty, etc.).

Leverage co-teaching model to lower average teacher salary costs & improve novice teacher professional development: Many DCPS schools take a team teaching approach to complying with the state class size requirement. DCPS should evolve this practice as a means to both strengthen the district's pipeline of novice teachers and lower average salary costs. Co-teaching pair roles should be restructured to match "teacher apprentices" with "master teachers." Teacher apprentices would be new teachers, and though they would be certificated staff they would have fewer responsibilities than a regular teacher (e.g., fewer planning responsibilities, etc.) and be paid commensurately less. The role would be temporary, consistent with the notion of a year-long apprenticeship. Teacher apprentices would be paired only with "master teachers," who had a demonstrated track record of instructional excellence and who were able to provide outstanding mentorship. This strategy would not only create an important development opportunity for a subset of new teachers, but is also consistent with the broader restructuring of compensation to align with a career path as discussed above. Because teacher compensation would be lower for apprentice teachers, this would free resources either to invest in pay for teachers further along the career pathway, or for other priorities.

Note: This differentiation of teacher roles is very similar to a model used by Achievement First at the Elementary Level. It is also similar to a model for implementing class size reduction used in St. Johns County.

APPENDIX D: List of "Spotlight" Schools

As part of the data collection for this project, ERS sent teams to 18 schools for half day visits. The visits were comprised of interviews with the principal and other school leaders, focus groups with teachers and a walkthrough of the building and classrooms. Spotlight schools provided additional data to supplement the data for the school that ERS collected centrally. The spotlight schools were:

Elementary	Middle	High
Chets Creek	Arlington	First Coast
Henry Kite	James Weldon Johnson	Fletcher
Parkwood Heights	Northwestern	Jackson
Rutledge Pearson	Oceanway	Robert E. Lee
SP Livingston	Paxon	Mandarin
Spring Park	Southside	
Stockton		

ERS thanks the principal and staff of each of these schools. While not referenced in this report by name, their insights and contributions to this report were meaningful and greatly appreciated.





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