Improving Improvement

A Multi-Case Study of Turnaround Efforts in JCPS High Schools

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Executive Summary

Under the terms of the NCLB Waiver, each state was required to identify and label the lowest-performing five percent of schools for "priority" status. Districts were offered four models from which they could choose: external management, re-staffing (turnaround), school closure, or transformation. Jefferson County Public Schools (JCPS) in Louisville, Kentucky has the highest concentration of priority schools in the Commonwealth, and like many districts, chose the "turnaround" model, which called for significant turnover in leadership and staff. Following several years of interventions, three high schools have exited priority status while eight remain identified. As such, JCPS has an interest in discerning what the three high schools that exited priority status did to improve and whether strategies they employed could be implemented at other district high schools.

To fully understand the complexities of the issues facing priority schools and to identify lessons for school improvement or turnaround from exited priority high schools, the project team elected to include three current priority high schools that also received similar "treatments" – supports given to all priority schools – but which have not yet exited priority status. Based on our reviews of the school turnaround and school improvement literature and in consultation with JCPS, we identified the following project questions for this study:

1. *To what extent does a sample of six current or former priority high schools in JCPS reflect examples of school turnaround or sustainable school improvement?*
2. *What factors and approaches appear to distinguish schools that improved more compared with those that improved less?*
3. *Across all six schools in the sample, what strategies or programs seem to contribute to improvement?*

These project questions led us to identify trends across the case study schools, examine approaches employed by schools that have demonstrated improvement, and document obstacles to both improvement and the sustainability of progress. We employed a mixed-methods design that included rich case studies and an analysis of academic and demographic trend data. The project team interviewed district officials as well as school administrators, teachers, and students at all six schools in the study.

While on site, the team conducted classroom walkthroughs to observe lessons and documents routines, procedures, and programs at each school. Additionally, the team conducted analyses of secondary data and documents to examine quantitatively the changes in performance that may have occurred.

Based on the qualitative and quantitative data collected, the team has identified the following key findings:

Project Question 1: *To what extent does a sample of six current or former priority high schools in JCPS reflect examples of school turnaround or sustainable school improvement?*

1. **Exiting from priority status does not equate to turnaround or sustained improvement.**
   The accountability system used a composite index score that included several factors that could be easily manipulated. It was possible to exit status after making minimal or only tenuous improvement, while some meaningful improvement went unrecognized.

2. **A select set of schools showed gains on state tests, but little or no improvement on ACT composite scores.**
   Proficiency on state assessments are a primary indicator for turnaround and improvement used in the research literature, and analysis points to four schools that showed signs of improvement, three of which may meet definitions of turnaround. However, proficiency rates do not always tell the whole story, as cut scores for different performance levels can change over time. Even when compared to state or district averages, a variety of factors can influence the performance of a school in a single test administration. Nationally normed and widely used assessments such as the ACT may be better measures of improvement, but on these more rigorous assessments, even exited schools showed little or no progress over time.

3. **Graduation rates are on the rise, but are easy to manipulate.**
   Another factor that influenced how schools were identified and either retained or exited from priority status was graduation rate. Graduation rates have increased across JCPS, mirroring state and national trends, but this is partly due to better record keeping and alternative pathways to graduation rather than true improvement.

4. **Survey Data Generally Confirms Test Score Trends.**
   Student survey data provides valuable information on improvement trends that generally confirm trends in state test scores. The same four schools that showed some signs of improvement on state tests also had improved scores on a composite "improvement index" derived from aggregated, annual student survey data on measures pertaining to leadership quality, school culture, and instructional capacity.

Project Question 2: *What factors and approaches appear to distinguish schools that improved more compared with those that improved less?*

1. **Strong leadership is the sine qua non of improvement.**
   Leaders can set the tone for school improvement by signaling the need for change, setting a culture of high expectations, articulating clear goals and 'collective commitments' around instruction and school culture, and motivating broad engagement, sustained focus, and continuous improvement toward these goals. The highest performing leadership teams demonstrated efficacy, consistency, and cohesion.

2. **(Vision x Instruction) + (Vision x Culture) = Improvement, however Instruction^2 appears to be more effective than Culture^2**
   The formula for sustainable school improvement appears to involve a clear vision for both instructional practice and school culture, articulated by leaders and internalized by all school community members. Schools that improved most followed this formula. However, doubling down on instructional capacity seemed to have a greater impact on outcomes than focusing primarily on school culture.

3. **The quality and stability of staff is a major factor affecting (or imperiling) sustainable improvement.**
   The restaffing model adopted by each of the selected priority high schools in JCPS created a significant sense of disruption to the professional community and led to an influx of young and inexperienced teachers, but with the right leadership, created the conditions for deep culture change within the schools. The schools that were able to benefit most from this "reset" were those that adopted well-defined systems of professional support (PLCs). District policies that allowed priority schools to pursue better candidates for teaching vacancies were critical to improving instructional capacity.

4. **Demography is (or at least contributes to) destiny.**
   Contextual antecedents – demographics, busing, the distance many students live from their schools – all impact school performance despite school improvement efforts. The two schools that most consistently demonstrated improvement were also the two with the least challenging demographics.

5. **There were five common elements of instructional improvement: 1) PLCs, 2) data driven instruction, 3) student support and intervention systems, 4) instructional frameworks, and 5) frequent walkthroughs and coaching.**
   The most successful schools focused intensively on the following core strategies to build instructional capacity: 1) professional community and support through well-implemented PLCs, 2) data informed instructional practice, 3) effective student support and intervention systems, 4) establishing and using a shared instructional framework, and 5) conducting frequent walkthroughs and instructional coaching.

6. **External support played an important role in effective improvements.**
   The schools that showed the strongest signs of improvement received strong support from either state Education Recovery staff or from external consultants.

Project Question 3: *Across all six schools in the sample, what strategies or programs seem to contribute to improvement?*

1. **Intervention and recovery systems provided robust student support.**
   Every school in our sample that had shown strong academic performance in recent years placed an emphasis on using student data and providing extra support to struggling students through some form of intervention period or in-class recovery.

2. **Key tools and systems were used to provide instructional support and foster professional community.**

Effective means of providing instructional support and fostering professional community often included PLCs, common instructional frameworks, frequent classroom walkthroughs, and targeted instructional coaching. The efficacy of these efforts was largely dependent on the consistency of emphasis by the leadership team and the quality of supports for implementation.

3. **Building a culture of care and support was the first step in most improvement trajectories.**

Some schools concentrated their efforts almost exclusively on culture, while others folded in stronger emphasis on strengthening instruction. Specific initiatives that strengthened school culture included an effective Freshman Academy, strong extracurricular offerings to deepen adult-student relationships, ensuring a relevant and engaging curriculum, and incorporating student voice in school decisions. Additional promising practices included a mindfulness initiative and a process of investing students in school improvement efforts through class meetings.

Finally, based on these findings, we offer the following **recommendations**:

1. **Improve improvement.**
   State index scores are not reliable measures of improvement. JCPS should measure and incentivize sustainable improvement strategies, focusing on efforts to build a strong school culture of care and support and to increase instructional capacity.

2. **Focus on equity.**
   District-level decision making should account for differences in school needs; schools serving higher need populations should receive higher levels of district support. We recommend that JCPS examine its policies, staffing, and resource allocation with a renewed focus on equity, and specifically recommend extending the length of time that schools receive differentiated support after they exit priority status.

3. **Build district capacity.**
   Through reorganization, additional staffing, and expanded efforts to promote and incubate innovative solutions, JCPS should aggressively build its district-level capacity to systematically support and invest in its highest need schools.

School Turnaround and the Quest for Quality Schools in Jefferson County, Kentucky

Education is often perceived as the gateway to increased opportunity and, inasmuch as it promotes equity, an active social good. As Horace Mann famously noted in his 1848 Annual Report, "Education, then, beyond all other devices of human origin, is the great equalizer…the balance-wheel of the social machinery" (Mann, 1848). In recent years, however, our education system has come to be seen as a threat to equality rather than the great equalizer. As Hochschild and Scovronick observe, "schools too often reinforce rather than contend against the intergenerational paradox that is at the heart of the American dream" (2004, p.5), entrenching inequality across generations rather than promoting equality and social mobility. It is widely accepted that current models of K-12 education continue to fall short in preparing students from low socioeconomic status (SES) backgrounds for college and career success (Hamrick & Stage, 2004; Rendon & Hope, 1996), particularly in chronically low-performing schools in urban centers. While greater attention has been given to struggling schools in recent years, the challenges of school improvement and school turnaround remain daunting.

The passage of the No Child Left Behind Act of 2001 was a distinct inflection point for state and district accountability and support efforts. The bipartisan reauthorization of the Elementary and Secondary Education Act (ESEA) added a requirement for low-performing schools to improve and to better address the needs of all student subgroups (NCLB, 2001). Every school was assigned annual progress targets and schools that failed to meet those targets were subject to advanced interventions. While these fixed targets proved problematic, the NCLB Flexibility process, initiated under the Obama administration, retained the focus on low-performing schools and achievement gaps. As part of this "waiver" process, Kentucky identified certain schools as "persistently low achieving" (PLA) using assessment data from 2009-2011 (Kentucky ESEA Flexibility Request, 2012). With the approval of their waiver – which they dubbed "Unbridled Learning" – these "PLA" schools were identified as Priority Schools.

Under the terms of Kentucky's NCLB Waiver and state statute, Priority Schools must select one of four school intervention choices: "external management, re-staffing (turnaround), school closure, or transformation" (Kentucky ESEA Flexibility Request, 2012). Like most districts, Jefferson County Public Schools selected a "turnaround" model, which includes replacing the school principal and up 50% of the teaching staff along with oversight by the Kentucky Department of Education – wherein each school is assigned an "Education Recovery Leader" and content specialists in ELA and mathematics (Kentucky ESEA Flexibility Request, 2012). Schools are required to develop a "Comprehensive School Improvement Plan" (CSIP) as well as short-term 30-60-90 day plans. In districts with multiple priority schools, districts are also subject to additional planning and intervention requirements, including the development of a "Comprehensive District Improvement Plan" (CDIP) and additional monitoring and guidance (Kentucky ESEA Flexibility

Request, 2012). Specific strategies for district turnaround, such as data use and community engagement, are suggested as part of the CDIP process.

To exit Priority School status, a school must achieve the reverse of what initially identified it as low performing: it must no longer fall in the bottom five percent of similarly configured schools on the state accountability index and it must meet annual improvement targets on the index for three consecutive years. For high schools, like the ones in Jefferson County that are the subjects of this capstone project, schools were required to:

- Make their Annual Measurable Objective (AMO) overall goal for three consecutive years;
- Maintain a graduation rate greater than 70 percent; and
- Be above the bottom 5th percentile on the state accountability index (Kentucky ESEA Flexibility Request, 2012).

Request for Assistance and Project Questions

In a Request for Assistance (RFA) to the Vanderbilt Ed.D. program for a Capstone project and team, the JCPS Office of Priority Schools expressed the desire to learn from the three high schools that had "turned around" and exited from priority status, so that lessons might be derived and strategies and programs possibly replicated in other priority schools.

Jefferson County Public Schools has the highest concentration of priority schools in the Commonwealth, including two elementary, eight middle, and eight high schools (JCPS RFA, 2017). While the district reports improvements in student achievement across Jefferson County, the administration hopes to improve the performance of these persistently low-achieving schools. The district reports that in the priority schools, the percentage of students scoring in the lowest performance band is between 18% and 30% higher in ELA and 16% and 33% higher in mathematics as compared to non-priority schools (JCPS RFA, 2017). In its Request for Assistance (RFA), the district states its desire to replicate the successes from the three priority high schools that qualified to exit status and apply any lessons to its remaining low performing schools.

In seeking to identify lessons for school improvement or turnaround from exited priority high schools in JCPS, the project team suggested that it was important to first explore the extent to which turnaround or improvement has occurred in these schools. To the extent that improvement or turnaround did occur in exited schools or other sampled schools, these schools could be compared to non-exited schools or schools that did not show similar levels of improvement. Secondly, the project team suggested that it may be possible to observe pockets of improvement among all schools related to specific programmatic elements or practices, which could be identified based upon

stakeholder perceptions and practices or programs that corresponded with key findings from the research literature on school improvement or turnaround. The team could then consider the replicability of these practices and factors to other JCPS high schools based upon the data collected and findings derived from the study. Therefore, the following project questions for this study were initially identified:

1. To what extent does a sample of six current or former priority high schools in JCPS reflect examples of school turnaround or sustainable school improvement?
2. What factors and approaches appear to distinguish schools that improved more compared with those that improved less?
3. Across all six schools in the sample, what strategies or programs seem to contribute to improvement?

Conceptual Framework

On Turnaround and Improvement

Our inquiry is concerned with both turnaround and improvement. We regard turnaround as a difference in degree not a difference in kind from school improvement. However, given the rarity of turnaround, the more extensive literature and broader evidence base on school improvement, as well as the considerable conceptual overlap and generally common set of practices and norms identified for successful school turnaround and improvement, our conceptual framework is organized around themes drawn from both sets of literature. This conceptual framework provides the sensitizing concepts that guide our exploration of the degree and sources of improvements among the selected priority high schools in JCPS.

As is common practice, the attempt to improve failing schools in JCPS is characterized as 'turnaround.' The urgency to turnaround low-performing schools has only increased since NCLB and continues to be the focus of a significant amount of effort in urban and low-income districts. While it appears that 'turnaround' is used in Kentucky's education policy to characterize the process by which chronically low-performing schools move above the threshold that labels them as failing, namely, 'priority status,' it is not clear whether exiting from priority status constitutes school turnaround nor whether or to what extent it represents improvement. As such, we believe it is important to first define 'school turnaround' and 'school improvement.' Secondly, we draw on the research literature on both school turnaround and school improvement to provide a conceptual framework to guide our study and analysis.

Definitions and Evidence Base

Huberman, Parrish, Hannan, Arellanes and Shambaugh (2011) note, "Turnaround is a highly innovative and comprehensive intervention that differs from school improvement [in that it] dramatically increases organizational performance and

student learning in rapid fashion...and brings the school to the door of sustainability" (p. 1). The main tenets of school turnaround include setting challenging goals, using highly innovative strategies, and implementing rapid change to create dramatic improvement. Turnaround work should be scalable and sustainable, and success is a function of academic gains in reading and math. In terms of what constitutes "dramatic improvement," Herman (2012) suggests that persistently low-performing schools should achieve a minimum 10% gain on state tests within three years, maintaining or building on those gains for at least an additional two years, to be considered examples of turnaround. Alternatively, Stuit (2010) and Loveless (2010) suggest that low-performing schools should meet or exceed the state average in academic performance to be considered examples of turnaround.

Research suggests that turnaround involves a complex set of factors, none of which can affect meaningful change when addressed in isolation. Orr, Berg, Shore, and Meier (2008) suggest that effective approaches combine "leadership and organizational development with curricular and instructional reform models" (p. 670). A significant body of research has been devoted to identifying what works to produce school turnaround. These findings generally cover a wide variety of factors, which will be described below. Herman et al. (2008) emphasize, however, that correct strategies produce little change without effective implementation, and schools and districts should adapt strategies and practices to local contexts.

Other scholars have questioned the feasibility of turnaround, according to this definition. They note the considerable lack of empirical grounding for each of the following elements of its definition: the supposed differences with school improvement, the feasibility of dramatic improvement in schools, any indication of the feasibility of going to scale effectively, and the sustainability of any gains achieved by the prevailing approaches to turnaround (Murphy & Bleiberg, 2018). Despite a considerable policy focus and large amounts of funding devoted to turning around low-performing schools, there are very few examples of successful school turnaround. The majority of schools either do not produce meaningful change under the conditions that it engenders, or such changes do not prove to be sustainable over the long term (Huberman et al., 2011; Hamilton, Heilig & Pazey, 2014; May & Sanders, 2013; Murphy & Torre, 2014). This has led some education policy leaders to conclude that turnaround is not a "scalable strategy for fixing America's troubled urban school systems" (Smarick, 2009), and to advocate for closing failing schools as a more viable and effective approach. It is this very sentiment that led Maryland's veteran state superintendent to compare school turnaround to "finding the cure for cancer" (Smarick, 2009).

In a 2010 study by Stuit, only 26 (0.12%) of 2,025 low-performing schools achieved the proposed turnaround benchmark (i.e. exceeding the state average for academic performance) within five years. In a similar study, Loveless (2010) found only 3.5% of schools in a sample of 115 in the bottom 10% were able to achieve at or above the state average over a period of 20 years. Herman (2012), however, suggests an alternative turnaround benchmark of 10% improvement in state test scores, a much lower bar for the lowest achieving schools. Using this benchmark for turnaround, Herman suggests that between 1 and 15% of school turnaround efforts are successful.

In terms of a definition of school improvement, it can be defined simply as an "increase in effectiveness over time"

(Murphy & Torre, 2014, p. 3; see also Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010). Research suggests that school improvement is complex, multifaceted, and conditioned by context (Murphy & Torre, 2014; Murphy, 2015). Successes are fragile and unforeseen consequences, dips in performance, and political tension can be expected (Bryk, Gomez, Grunow & LeMahieu, 2015; Murphy & Torre, 2014; Murphy, 2015). Improvement takes time to "germinate" and is developmental and incremental (Murphy & Torre, 2014, p. 38).

Leaders tend to favor structural changes, though we know that substance and not structures drive improvement: "The great paradox here is that while reworking the climate, or the seedbed, of the school, is the main work, structural changes are required to hold new patterns and understandings in place. That is, while structures have only limited influence on conditions that enhance learning, without them, new perspectives will dissipate" (Murphy & Torre, 2014, p. 41). Because of this, planning must be adaptive, iterative, and foster continuous learning (Adler, 1999; Ancona & Bresman, 2007; Bryk et al., 2015; Langley et al., 2009; Murphy & Torre, 2014). The work should be collaborative, especially with teachers, students, and parents (Ancona & Bresman, 2007; Bryk et al., 2015; Smylie, 2002; Scribner, Hager & Warne, 2002), and plans should be adapted to the specific school context (Bryk et al., 2015; Murphy & Torre, 2014). Research also affirms that school improvement is "collective, multifactor work" and should "extend beyond the school" (Murphy & Torre, 2014, p. 37-38).

Key themes of school improvement and turnaround literature focus on the importance of school leaders and their role in fostering a shared mission and vision, as well as employing a mixture of "academic and cultural levers" (Murphy & Torre, 2014, p. 37-38). The research literature suggests the following primary drivers of school improvement: 1) the efficacy of school leaders and the degree to which leaders effectively build and motivate effective action around shared mission, vision, values, and goals, 2) the degree to which an effective school culture is developed and maintained, and 3) the way in which the instructional program is developed and strengthened (Bryk et al., 2010; Murphy & Torre, 2014; Murphy, 2015).

Leadership, Shared Vision, and Goals

Leadership, for both turnaround and improvement, is of utmost importance. Research suggests that, to achieve maximum results towards turnaround, leaders should signal and commit to dramatic change (Herman, et al., 2008; Robinson & Buntrock, 2011), motivate and mobilize staff (Herman, et al., 2008; Murphy & Bleiberg, 2018), and cultivate and develop quality teachers (Herman, et al., 2008; Murphy & Bleiberg, 2018; Robinson, Lloyd & Rowe, 2008). It is also important for leaders to establish a positive and productive culture for the school (Robinson et al., 2008; Murphy & Bleiberg, 2018), and establish a clear definition of school turnaround and motivate collective action around a clear set of measurable goals (Robinsonet al., 2008; Robinson & Buntrock, 2011; Salmonowicz, 2009).

There is much in common with how school leadership is considered in the school improvement literature. It is the cornerstone of success in K-12 education and requires thoughtfulness in action and a coherent system of beliefs. As Murphy and Torre (2014) suggest, the "essence of leadership is (1) having a sense of where an organization needs to get to, or what it needs to achieve, and (2) creating the capacity and deploying that capacity to reach desired ends" (p. 4). Research on school leadership has focused on

its role in organizing human capital and professional development in order to maximize human resources (Murphy & Torre, 2014), recognizing the need to "improve schools for the adults who work in them" (Smylie & Hart, 1999, p. 421) in order to increase student learning. Similarly, an emphasis on collaboration and a "belief in the power of the community of stakeholders to arrive at decisions that are best for students" has been demonstrated to be strongly correlated to school success (Murphy & Torre, 2014, p. 10; see also Leithwood, Day, Sammons, Harris, & Hopkins, 2006; Newmann, King, & Youngs, 2000). Additionally, a meta-analysis of studies has emphasized the importance of school leaders as instructional leaders, namely investing time and resources in and focusing on improving instruction as the core work of schools (Robinson et al., 2008).

Clear and compelling mission, vision, values, and beliefs that permeate the life of the school are a critical foundation upon which to build an effective and supportive school culture. Mission engenders commitment to success and the belief that all students will be successful (Murphy, 2015). Research has affirmed that values and beliefs powerfully shape behavior in organizations (Besharov & Khurana, 2012; Bolman & Deal, 1991; Kraatz, Ventresca & Deng, 2010; Murphy & Torre, 2014; Whetten & Cameron, 2004). Scholars note the importance of shared vision among teachers (Murphy, 2015; Stoll, Bolam, McMahon, Wallace & Thomas, 2006; Scribner et al., 2002), suggesting the value of a collaborative development process and regular reflection. Adults in the school should share a vision that sets high expectations and fosters academic engagement for all students (Hattie, 2008), predicated on the belief that all students are capable of learning and failures should not be attributed to children and families (Murphy 2015; Murphy & Torre 2014). Additionally, researchers point to the importance of goals in improving schools: "the development and inculcation of widely shared, ambitious, and unambiguous learning goals is one of the most valuable instruments in the school improvement toolbox" (Murphy, 2015, p. 38).

Both literatures focus on the role of leaders in setting and communicating a vision to motivate collective action to improve performance. Insofar as there is any difference between them, it may be in the sense of urgency, the signaling and committing to dramatic change. Though even this is related to setting a vision of high expectations and radical commitment to all children succeeding, which is common to both. Perhaps the only real difference is the expectations for the 'dramatic' pace of change in turnaround. Yet the literature points to the unrealistic nature of this expectation, due to considerable barriers to rapid change (Smylie, 1995; Murphy & Bleiberg, 2018). These include: organizational norms and precedents of schools that are not conducive to rapid change (Little, 1988), the highly bureaucratic structure (Suleiman & Moore, 1997) and hierarchical culture (Lambert, 2003); that some people in schools benefit from the status quo and oppose change (Crowther, Kaagan, Fergusan, & Hann, 2002; Murphy & Bleiberg, 2018); that most educators have only known the current organizational system and tend towards regress (Lieberman & Miller, 1999; Little 1987; Heller, 1994; Murphy & Bleiberg, 2018); that teaching is normally individual work in self-contained classrooms, creating an "egg crate" structure (Boles & Troen, 1996, p. 59; Buckner & McDowelle, 2000; Little, 1990; Murphy & Bleiberg, 2018); and that unions, strong collective bargaining, and limiting contractual arrangements for teachers can be a barrier to change (Pellicer & Anderson,

1995; Stone, Horejs & Lomas, 1997; Killion, 1996; Murphy & Bleiberg, 2018).

School Culture

There is, again, considerable overlap in how school turnaround and improvement literature point to the importance of school culture as a driver of strengthening school performance. The turnaround literature suggests that the culture of the school should revolve around the practice of teaching and student learning (Herman, et al., 2008; Picucci, Brownson, Kahlert, & Sobel, 2002; Trujillo & Renee, 2012), enforce high expectations for students through rigorous academic study (Herman, 2008; Picucci, Brownson, Kahlert, & Sobel, 2002), and align to norms of care and support (Herman, 2008; Picucci et al., 2002). An effective school culture in turnaround schools should also employ a context-specific and responsive approach to instruction and utilize wrap-around services to support all students to succeed (Herman, 2008; Trujillo & Renee, 2012; Picucci et al., 2002).

Relatedly, the broader education literature defines productive school communities as those including a push toward higher academic standards coupled with ample personal support, what Ancess (2000) calls "a combination of nurture and rigor" (p. 595; also, Bryk et al. 2010; Murphy and Torre, 2014). Murphy and Torre (2014) identify a set of key norms that define an effective school culture:

1. *Care* involves teachers working hard on behalf of students to provide quality and meaningful instruction (Ancess, 2003; Newmann, 1992), knowing students well (Ancess, 2003; Bryk et al., 2010), being accessible (Newmann, 1992) and challenging students (Shouse, 1996), or what Antrop-Gonzalez and De Jesus (2006) describe as "hard caring" (p. 413). Care is fundamentally about student and teacher relationships, which drives student engagement (Murphy & Torre, 2014).
2. *Support* entails providing assistance or counseling (Antrop-Gonzalez, 2006), safety nets (Cooper, Ponder, Merritt, & Matthews, 2005), and mentoring (Woloszyk, 1996) to safeguard students' academic, social, and emotional well-being (Murphy & Torre, 2014).
3. *Safety* includes a personal, warm, and respectful environment, the proactive cultivation of a positive peer culture through student leadership and collaboratively defined positive expectations (Murphy & Torre, 2014).
4. *Membership* involves student ownership (Ancess, 2003; Hattie, 2009) and involvement where students engage their "talents, skills, and interests" (Crosnoe, 2011, p. 238) as in extracurricular activities (Ancess, 2003; Antrop-Gonzalez & De Jesus, 2006; Hattie, 2009; Murphy & Torre, 2014; Woloszyk, 1996).

In terms of possible differences, some scholars have criticized turnaround approaches for "too narrow a focus on academics" (Murphy & Bleiberg, 2018) that inadequately attends to the needs of disadvantaged students (Heissel & Ladd, 2016).

Instructional Capacity

Research on turnaround points to the importance of strengthening instructional capacity in the school by maintaining a consistent focus on instruction (Herman, 2012). Factors include an emphasis on continuous professional learning (Herman et al., 2008), attention to the improvement of core instructional strategies (Herman et al., 2008), a focus on data and assessment (Herman et al., 2008; Herman, 2012; Robinson & Buntrock, 2011; Salmonowicz, 2009; Trujillo & Renee, 2012). Research also points to the importance of building a committed staff, which may require reassigning or releasing staff to build a team dedicated to the goals and practices necessary for turnaround (Herman, et al., 2008; Herman, 2012).

The turnaround literature's treatment of instruction is generally consistent with themes of research on school improvement, though considerably more superficial and incomplete in its treatment of core drivers for improving instructional capacity (Murphy & Bleiberg, 2018). The improvement literature suggests that increasing the instructional capacity of a school is largely a function of staffing, the effective use of time, investment in quality materials, support of teachers, and an effective use of data and assessment (Murphy, 2015).

1. The critical driver of instructional capacity is the *quality of teachers* secured through effective processes of recruitment, selection, assignment, retention, and dismissal (Bryk et al, 2010; Murphy, 2015).
2. Additionally, principal *support of teachers* is frequently noted as a critical factor (Cotton, 2003; Leithwood, Harris & Strauss, 2010; Murphy, 2015). Relatedly, *talent development* and fostering an effective *professional learning community* is another key element of instructional capacity building (Murphy, 2015). Effective professional learning requires time, depth, sustained attention, coherence, an evidence base, and a focus on student learning goals and outcomes (Barnes, Camburn, Sanders, & Sebastian, 2010; Darling-Hammond & McLaughlin, 1995; Firestone & Martinez, 2009; Murphy, 2015). Professional growth is also both personal and communal. Professional communities drive improvement through evidence-based practice and knowledge creation (Bryk et al., 2015; Glazer & Peurarch, 2015). If done well, professional communities augment motivation and work satisfaction (Amabile & Kramer, 2011; Clark, 2003; Kruse & Louis, 1993). Professional community requires structures, but also authenticity, clear purpose, and focus that enlivens them and makes them effective (Murphy, 2015).
3. Effective formative *assessment*, intentional analysis and use of student data, and student-level progress monitoring are critical drivers of school improvement (Murphy, 2015; Herman et al., 2008).
4. Effective school leaders also emphasize the *use of time*, devoting their own time to improving instruction, adding instructional time to needed subjects, extending instructional time for underperforming students, and setting standards for effective time use throughout the school (Hattie, 2009; Murphy, 2015).

5. School improvement is also linked to effectively securing material *resources* that can advance school goals and ensuring that these are effectively used (Murphy, 2015; Robinson et al., 2008).
6. Instructional capacity is contingent upon the *quality and rigor of the curriculum*, the opportunity to learn and cover content standards, the authenticity and meaningfulness of learning experiences, and the coherence of the academic program (Murphy, 2015).

External Support

External support appears to be a theme in the turnaround literature that is less evident in the school improvement literature. Studies of turnaround suggest that effective external support mechanisms, primarily in the form of leadership training and coaching, can be an important factor in promoting the efficacy of turnaround efforts (Player and Katz, 2016). In terms of effective district support, administrators foster turnaround by providing flexibility and autonomy to school leaders (Herman, et al., 2008) and the financial support needed to facilitate rapid improvement (Robinson & Buntrock, 2011; Salmonowicz, 2009; Trujillo & Renee, 2012). Other literature points to the NCLB policy requirement that state education agencies "assume substantial responsibilities" (AIR, 2011, p. 10) but generally struggle to provide efficacious support to schools and districts to promote effective turnaround (McMurrer, 2012; Murphy & Bleiberg, 2018). States saw themselves as facilitators (Tanenbaum et al., 2015); focused on compliance (Yatsko, Lake, Nelson & Bowen, 2012), and rarely did above average work in monitoring and technical assistance due to capacity gaps (McGuinn, 2012; Tanenbaum et al., 2015). Scholars regard this as a critical or "fatal" gap (Murphy & Bleiberg, 2018, p. 15; Peurarch & Neumerski, 2015; Yatsko et al., 2012). Similar capacity gaps are noted at the district level. "Most districts appear to be flying blind" and "failed to provide strong guidance, support, and oversight" (Yatsko et al., 2015, p. 42, 27), or tended towards a compliance approach to improvement as was also noted of state agencies (Picucci et al., 2012).

Student Voice

A final note on a gap within the turnaround literature is the absence of student voice and perspectives (Kirshner & Jefferson, 2015; Peck & Reitzug, 2014; Murphy & Bleiberg, 2018). "In the few studies where interviews and surveys were employed, the "student" voice was almost never picked up" (Murphy & Bleiberg, 2018, p. 32). Students tend to be presented in passive terms (Flutter & Rudduck, 2004), as a product (Peck & Reitzug, 2014), and "almost entirely as objects of reform" (Levin, 2000, p. 155). Rarely are students included in the planning process or consulted about school change efforts (Murphy & Bleiberg, 2018). Murphy emphasizes the problematic absence of student perspectives in turnaround research and practice, noting the overwhelming contrast to the broader organizational recovery literature that powerfully emphasizes the centrality of a customer focus (Murphy & Bleiberg, 2018). Thus, student voice is both important as an element to consider in turnaround and improvement practice, but also notable here is our study hopes to offer a response to this gap in the turnaround literature.

Methods

The project team employed a mixed methods approach, with an initial quantitative analysis of secondary data from the district and state to determine the degree of improvement or turnaround of the sampled schools. The primary focus of the study then used an in-depth qualitative methodology to explore likely drivers of improvement in the sampled schools and to seek lessons for other schools, the district, and the state. This qualitative inquiry was concerned with description and interpretation and examines "processes, relationships, settings and situations, systems, and people" and "outcomes that explain or create generalizations, develop new concepts, elaborate existing concepts, provide insights, clarify complexity, and develop theory" (Peshkin, 1993, p. 24-25).

To explore the extent to which the JCPS high schools that have exited priority status (hereafter exited schools) reflect examples of school turnaround, we examined secondary data from the district and the state on exited schools, current priority schools, and district and state averages in order to draw suggestive conclusions about the degree to which performance in selected schools may meet definitions of school turnaround.

Data collection methods for the qualitative study focused on the factors and programs that appeared to contribute to improvements and included school and classroom observations, interviews with school leaders, teachers, and district personnel, interviews and focus groups with students, and document reviews. In order to understand the lessons that can be gleaned from the experiences and strategies of those schools that had demonstrated improvement, we focused our inquiry on the organizational, instructional, and cultural factors derived from our conceptual framework or that appeared through our inquiry and analysis to help explain changes in the schools' performance. Finally, we studied the district- and state-level policies and actions that created the context for priority schools in JCPS, by examining secondary data, considering the qualitative data across all school cases, and drawing from key interviews with district level personnel.

Case Study and Selection

We used a purposeful selection of three high school cases in the Jefferson County Public School District that have exited priority status and three high schools that remained on priority status. The three exited schools were selected as the only high schools in the district that have exited priority status to date. They were described in the district's RFA as examples of turnaround and targeted as the primary focus of this study, however, as indicated in the first project question, we wished to explore the degree to which exiting status actually corresponded with turnaround or improvement. Three current priority schools that had showed some signs of stabilization and initial improvement were also selected in consultation with the Director of the Office of Priority Schools for the District.[i]

As such, the study selection of exited and current priority high schools is not two clear groups of schools: improved (exited) and failed to improve (non-exited). Instead, the

selection represents some form of diversity sampling of schools perceived to be somewhere on the path of improvement by the District Director responsible for overseeing them, regardless of whether they had yet exited priority status. This allowed us to look for positive (or negative) points across all six schools as individual case studies, exited and non-exited, and regard each as a possible example of improvement and a source of lessons and findings.

As described in the data analysis section below, however, we pursued a means of analyzing schools by degree of improvement as measured by student proficiency rates on state tests and other indicators, in order to allow a comparative analysis, regardless of priority status, of schools that had improved *more* versus those that had improved *less* on key quantitative measures.

The high schools that have exited priority status are Fall River Traditional HS, Victory HS, and Wayne HS. The three current priority schools identified by the JCPS Director of the Priority Schools office as comparison schools are Farmington High School, Seminole High School, and Sunset High School. As evidenced in the descriptive statistics below, five out of the six have increased enrollment in recent years. Three of the six have seen increases in the number of FRL students, while three have experienced a net decline, though percentages vary each year. All six have seen increases in the percentage of students identifying as nonwhite

# of Students

	2013-2014	2014-2015	2015-2016	2016-2017	4-yr trend
Fall River	1389	1489	1504	1546	+157
Farmington	1049	1113	1128	1150	+101
Seminole	1429	1417	1389	1322	-107
Sunset	1068	1127	1151	1227	+159
Victory	1019	1403	1459	1186	+167
Wayne	709	744	822	835	+126

% Students Identifying as Nonwhite

	2013-2014	2014-2015	2015-2016	2016-2017	4-yr trend
Fall River	51.8%	54.1%	53.4%	57.6%	+5.8%
Farmington	38.0%	39.6%	38.7%	40.0%	+2.0%
Seminole	58.4%	62.0%	60.5%	63.9%	+5.5%
Sunset	44.0%	50.1%	50.7%	54.6%	+10.6%
Victory	40.3%	45.2%	47.0%	45.3%	+5.0%
Wayne	62.5%	60.3%	65.0%	67.3%	+4.8%

% Student Qualifying for Free/Reduced Lunch

	2013-2014	2014-2015	2015-2016	2016-2017	4-yr trend
Fall River	63.9%	68.1%	64.8%	70.4%	+6.5%
Farmington	77.3%	74.3%	77.7%	75.1%	-2.2%
Seminole	74.8%	77.7%	77.6%	80.5%	+5.7%
Sunset	75.3%	74.4%	73.3%	75.0%	-0.3%
Victory	82.2%	80.8%	85.0%	82.9%	+0.7%
Wayne	77.1%	78.2%	58.5%	73.2%	-3.9%

Data Collection

The research methodology consisted of a one-day site visit to each of the six selected schools, including interviews, focus groups, and observations. Interviews and focus groups explored key facets of the school organization that the research identifies as important for improvement, primarily surrounding the key topics of 1) leadership efficacy and mission/vision, 2) school culture, 3) instructional capacity, and 4) external support.

The team conducted interviews with the following key stakeholders:

- the school principal and other members of the school administration as available (1 hour)
- three pairs of teachers (1 hour), targeting a variety of core subjects and diversity of age, gender, and level of experience
- three pairs of students (30 min), followed by a focus group with the same six students together (30 min) that entailed guided activities to facilitate student interaction, targeting a diversity of perspectives and academic ability levels.

Teachers and students were interviewed in pairs to increase their comfort level, gain individual perspectives, and reach a greater number of participants in a limited time. Students participated in a focus group together to allow for the benefits of student interaction in guided activities to elicit authentic student responses. Attempts were made to select a diverse range of students, however, we limited the group to students over the age of 18, so that students could consent for themselves and to limit the administrative burden on school staff.

For observations, the team focused on and recorded detailed field notes for:

- school wide routines, processes, and procedures, such as start and conclusion of the school day and transitions between classes and lunch;
- classroom instruction in the form of a 7-10 minute walkthrough with an accompanying observation tool;
- programs related to priority schools and school improvement strategies whenever possible (i.e. advisory periods, etc.)
- the general school environments and operations in the form of a campus tour.

The first few classroom observations were conducted together by all three members of the research team to norm the use of the observation tool and improve the reliability of data collection and interpretation for subsequent classroom observations.

The team also collected relevant documents and artifacts, most notably, school

improvement audits by the Commonwealth of Kentucky Department of Education, conducted at one or more points after the schools were identified as priority schools, that chronicled the degree of improvement through a robust field visit and needs assessment that employed data collection techniques analogous to those used in our study.

Finally, the team collected secondary data from the district on the annual performance of the selected high schools and district-wide and state-wide performance on a set of key indicators, including graduation rates, proficiency rates on state tests in ELA and math, enrollment, demographics, attendance, and student survey data from the Comprehensive Survey that addresses factors pertaining to leadership, culture, and instructional quality.

Data Analysis and Coding

This study is a mixed-methods, multi-case study of school improvement focused on six schools in the process of improving as part of the turnaround efforts of Jefferson County Public Schools in the Commonwealth of Kentucky. The conceptual framework drawn from the literature provided "sensitizing concepts to orient fieldwork" (Patton 2002, pg. 456), a form of deductive framing of the analysis. In drawing upon this pre-existing framework and employing a cross-case analysis, this study represents a form of modified analytic induction in which the researchers have a set of preliminary hypotheses tested against variable cases to generate refined descriptive hypotheses and interpretation (Patton, 2005).

The first phase of analysis was quantitative and sought to address the first research question, the degree to which the exited priority schools represent examples of turnaround or improvement. The team utilized secondary data from the district and state on exited schools, current priority schools, and district and state averages in order to draw suggestive conclusions about the degree to which performance in selected schools met definitions of school turnaround or represented significant improvements. In particular, as most definitions of turnaround focus on student outcome performance on state tests, we charted the performance of students qualifying as proficient or distinguished in ELA and Math for participating high schools, as well as ACT composite scores and graduation rates each year, beginning four years prior to schools being designated as priority until the most recently available data (2016-2017). Scores were charted alongside and compared to district and state averages to account for changes in the measures or other district and state-wide historical factors as possible threats to validity.

For proficiency rates on state tests, a Z-test of proportions was used to identify when school proportions were statistically distinct from or equivalent to state and district rates. Tests were conducted using data from the year before priority status (2009-10), the three years following (2010-2013), and the most recent year of available data (2016-17). These tests were conducted to confirm the statistical significance of apparent trends in school performance among all six school cases as compared to the district and state proficiency rates, and were used to evaluate whether schools met conventional definitions of turnaround. They were also used to establish the two comparison groups of schools, namely those with more and less evidence of improvement. The team also assembled trends of other relevant descriptive statistics related to student demographics and enrollment so as to generally consider these factors in the analysis. More complex statistical methods to control for these variables or track students

longitudinally were neither feasible with available data nor were regarded as within the scope and primary purpose of this study. Limitations of this approach are noted below.

A final quantitative component was the analysis of student survey data from the Comprehensive Survey administered to all JCPS schools. The Comprehensive Survey has a large number of high quality measures of interest, but lacks an appropriate survey design and clear analytic methodology. It is not organized into constructs and does not appear to use pre-existing scales form the literature. Instead the survey is often reported as a single aggregate score, which poses serious questions about how the surveys are being interpreted and the usefulness and validity of this data. See the endnote for a more complete treatment of how we attempted to develop scales with face validity around key constructs of interest from our conceptual framework, and aggregate these into index scores for 1) leadership, 2) school culture, and 3) instructional capacity.[ii] We feel this method of interpreting the data, while still limited (i.e. we did not have the original data to conduct reliability and validity tests of our proposed scales), is a dramatic improvement in the interpretation of the Comprehensive Survey and could provide a model for the district to adopt. Finally, to reduce noise in the data from different cohorts taking the survey, each of these aggregate scores were averaged for 2009 - 2011 (the year before and first two years in priority status) to derive a rough "pre" score and 2015 – 2017 (the three most recent years of available data) to present a post score, presenting a stable picture of any improvement or regressive trends over time.

The second phase of analysis entailed the transcription and coding of all qualitative data into two tiers of "concept-cluster" matrices, the first tier at the school-level and the second tier representing comparative and cross-case analyses. All interviews and focus groups were recorded and transcribed. Transcripts were hand-coded around key concepts from the conceptual framework into a set of "concept-cluster" matrices, citing evidence and relevant quotations from interviews, focus groups, data from observations, the document review process and any relevant secondary data. Emerging themes from the data were used to inductively generate new categories within the matrices. In a second phase of coding and analysis, data from these tier-one school level matrices were re-coded and combined into a second-level matrix by inductively identifying key themes and findings from across all six school cases, and by comparing the more and less improved groups of schools, as identified from the quantitative analysis. Additionally, data from district level interviews and documents were included in this tier-two matrix.

Limitations

The primary purpose of our study is to identify possible lessons and effective practices, programs, or key factors from improved priority high schools that can inform a set of recommendations for other JCPS priority schools, the district, and the state. However, there are several limitations with the design.

First, all selected school cases are secondary schools and thus, the transferability of findings to primary and – perhaps to a lesser extent – middle schools may be limited. While these findings may be transferable, they should also be considered with caution as the research design is neither experimental nor quasi-experimental and precludes assertions of causality, nor was the selection of schools, teachers, or students random, which could introduce selection bias. Threats to external validity center on the small sample size, the inclusion of only high schools, and a single urban public school district, suggesting that findings are not representative even if they may be transferable to other schools in and outside of the JCPS context.

Second, the analysis of the quantitative statistical data should be interpreted with caution and as only suggestive of apparent trends. Given the focus and scope of this study, which was to understand the reasons for and applicable lessons from secondary schools that had exited from priority status in JCPS, we did not plan for a thorough inquiry into the question of whether and to what extent improvement occurred in these schools. We were interested in this question only to verify the degree to which exiting from priority status equated to turnaround or improvements in performance so as to guide our inquiry into the factors and programmatic elements that appeared to be sources of improvement. However, the limited sample size and the available cross-sectional data of school and district averages, while helpful in establishing a rough trend and suggesting a picture of performance over time, fail to control for many possible threats to internal and external validity. Perhaps the most notable threats to internal validity include the inability to control for differences in the student, parent, and staff populations, changes in these populations over time, changes in the district and the state over time, and differences in treatment composition or timing of delivery. Additionally, it is exceptionally difficult to disentangle multiple and complex factors that influence school performance and various possible differences in context in order to isolate the variables that explain changes in performance.

Despite these limitations, the research team went through considerable efforts to triangulate patterns derived from rich sources of data and disciplined inquiry and analysis. In doing so, we identified clear trends and themes that suggest a relatively strong level of confidence in the value of the findings and recommendations provided.

Findings

Project Question 1: *To what extent do a sample of six current or former priority high schools in JCPS reflect examples of school turnaround or sustainable school improvement?*

Finding 1: Exiting from priority status does not equate to turnaround or sustained improvement.

Targets for exiting priority status may say more about luck and the degree to which school leaders are savvy at manipulating a gameable accountability system than it does about actual improvement in fundamental aspects of school performance. One school, Farmington, showed among the strongest signs of improvement on qualitative and quantitative indicators, but failed to exit priority status due to narrowly missing AMOs, causing them to restart the process of trying to hit AMOs for three consecutive years. While Farmington has improved significantly and consistently, the two other schools that *did* exit from priority status, Wayne and Victory, have shown signs of slipping in performance. If Kentucky were still using its old accountability system, it appears that these exited schools may have fallen back into the bottom five percent on the index score.

It appears that index scores, however, are a problematic measure of school improvement. Respondents from the schools consistently articulated how aspects of the index score and state accountability system were easily manipulated and gameable, and that knowing how to take advantage of these aspects of the system was an important part of exiting priority status and showing growth on the index. In fact, schools that achieved exceptional gains on the index admitted this fact was a "dirty little secret of turnaround schools. Like, either you get right with the numbers and you learn to play the game or you don't" (Administrator, Exited School). To not do so meant to sacrifice the prospect of gains, exiting priority status, or even job security. As one administrator noted, "The state tells you what to value, ignore it at your peril...If you ignore it, then you may need to update your resume" (Administrator, Exited School).

Achieving significant increases in index scores required schools to "[get] very focused on numbers" and look for ways to "maximize your score" (Teacher, Exited School). This rhetoric bled over into how administrators managed staff, such that teachers would be expected to demonstrate how proposed changes would impact index scores. This level of attention to data and numbers was not evident at schools that did not exit priority status. An administrator of an exited school suggested this was likely the key difference that determined which schools exited:

"I think the schools with our demographic that didn't move just didn't pay attention to the accountability system. They didn't understand how scores were determined. They didn't maximize their opportunities. They don't even really know how they got the score they got. They don't track kid by kid. They are not exacting about what they expect from people. If you said, "Can you tell me your rate at any point in the year?" They'd be like, "uh, uh [no]."

While some might consider such attention to data to be a reasonable strategy for achieving turnaround or one that is necessitated by the accountability system itself, others thought of it as compromising the integrity of the core business of school and of their roles as educators. As another administrator in a non-exited school said:

"What's more important to me is: are we making progress with kids every day? Is this kid better because he was in your class and in this school or not? So I'm looking at retention rates, I'm looking at in-house assessments, I'm looking at honor roll, I'm looking at attendance, I'm looking at these things that...give a more clear picture. So maybe the lack of targeted focus on those scores gets in my way, that's been suggested, but I can't, I don't know how to motivate people around that. Like, I don't know how to say, 'Okay, if you take these seven Latino kids and really work with them... we would get like a ten percent jump" (Administrator, Non-exited School).

Regardless, improvement in index scores is only weakly aligned with growth on state tests and appears to have no connection to mean ACT Composite Score rates. In other words, it is possible for schools to show large gains in the index score while showing only modest gains in state tests and virtually no improvement in more rigorous measures like ACT scores.

Having learned that exiting from priority status is rather arbitrary, requires a fair amount of luck, and that index scores are a poor and gameable measure of improvement, we concluded that it does not make sense to limit the study to only those schools that have exited to look for evidence of improvement and possible lessons, nor is it appropriate to compare exited schools to non-exited schools as if exiting priority status was a valid indicator for school turnaround or sustainable improvement. Rather, as will be described below, we regrouped the schools based on more valid indicators of improvement into more and less improved groups for comparative analysis.

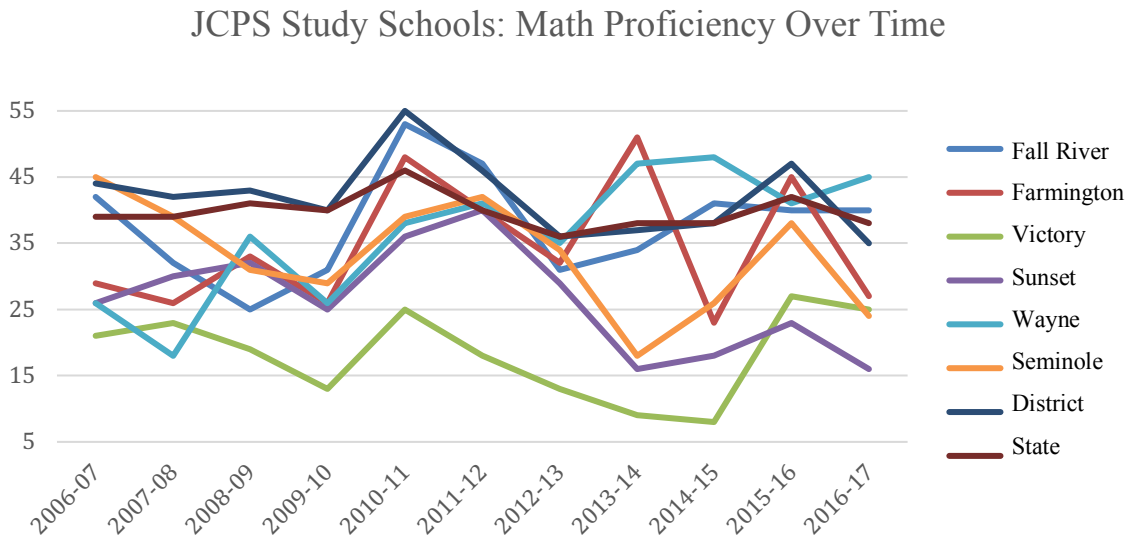
Finding 2: A select set of schools showed gains on state tests, but little or no improvement on ACT composite scores.

The research literature suggests that a possible benchmark for designating a school as an example of turnaround could be whether the state test scores dramatically improve in a 2-3 year period and go from the bottom 5 or 10% to at or above the state average.

Math proficiency rates

In the year preceding being identified priority schools (2009-10), all six schools had proportions of students that tested as proficient or distinguished in math that, using a z-test for proportions, were statistically significantly below the state average percent proficient or distinguished. In other words, they were significantly underperforming the district and state average. All p values were $p < .0001$ except for Fall River, which had a p

= .0006 for the comparison with the district and p = .0004 for the comparison to the state, suggesting that they were rather far below the state average at strong levels of statistical significance. By 2011-12, five of the six selected priority schools, all but Victory, had met or exceeded the district and state proficiency rates or had proportions that were statistically equivalent.



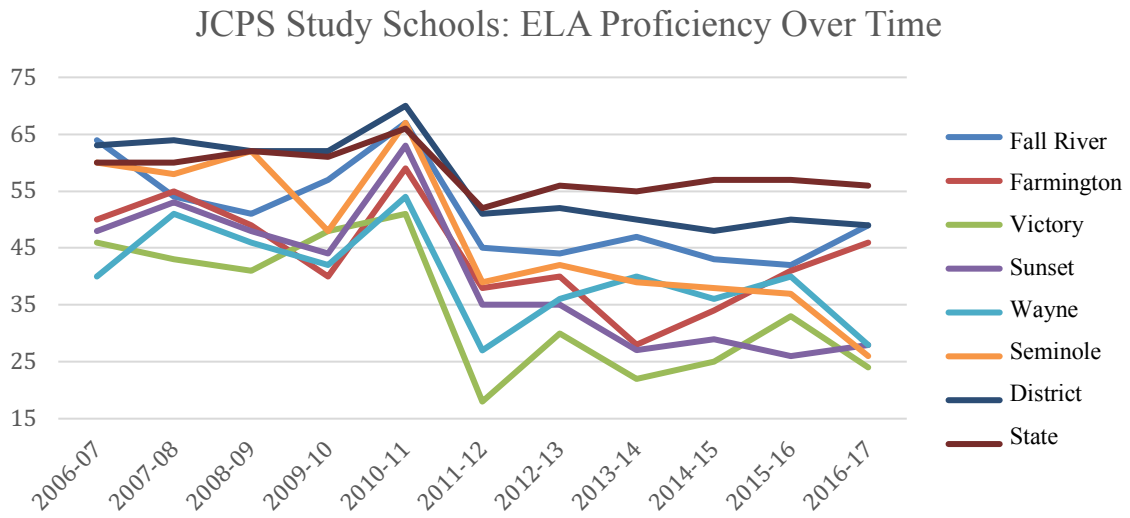
While these schools maintained statistical equivalence to the state and district for another academic year (2012-2013), two of the three schools, Sunset and Seminole, beginning in 2013-14, dropped back down to levels that were consistently and statistically significantly below the state and district percent proficient (again with all p values < .0001). Two schools sustained these gains and maintained math scores that were consistently statistically equivalent to or greater than the district and state average (Wayne and Fall River) and Farmington met or exceeded the state and district proficiency rate for 3 out of the 5 past years, with rather significant swings in math performance, including two years of dips below the state average followed by prompt recovery.

This suggests that all six schools showed early signs of improvement, where all initially closed the gap between the school percent proficient and the state and district rates of proficiency in math. Five out of six schools achieved equivalent performance within three years. Only Victory did not. According to some definitions from the research literature, these five schools could qualify as examples of turnaround, at least in terms of math performance. However, two of these schools, Seminole and Sunset, then dropped back to levels that were below the state and district averages by 2013-14 and remained there for the next few years, suggesting sustainability issues with the initial "turnaround." Three of the six schools in the sample were able to maintain their initial gains and maintain proficiency rates that were statistically equivalent to the state and district average, or in the case of Farmington, rates that tended to be at or above the state and district more regularly than below over the past 6 years. Finally, while still well below the district and state

average, Victory showed signs of recent improvement with a 10% spike in math proficiency rates from 2014-15 to 2016-17.

ELA proficiency rates

ELA proficiency rates tell a similar story to those of the math scores. The year immediately prior to being identified as priority schools (2009-10), all schools except Fall River had proficiency rates that were statistically significantly below that of the state and district average ($p < .0001$). In 2010-11, the first year after being designated priority schools, five out of six schools narrowed the gap between their proficiency rates and the district and state averages, with Seminole joining Fall River as statistically equivalent to the district and state averages, while Sunset was statistically equivalent to the state but below the district (p. .0067). However, in the two years after (2011-12 and 2012-13) all schools increased their gaps relative to district and state proficiency rates and were statistically below the district and state proportions. Over the next four years, two schools, Farmington and Fall River, were able to generate ELA proficiency rates that gradually climbed back to a level that was statistically equivalent to the district and slightly, but at statistically significant levels, below that of the state.



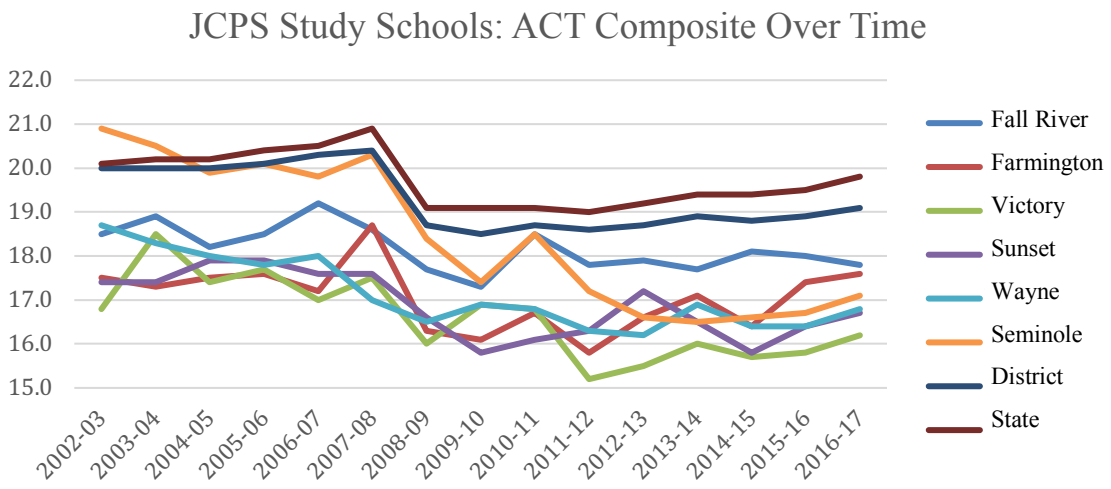
Thus, we see a similar pattern of quick gains that were not sustained by the majority of schools, and only two schools, Farmington and Fall River, that were able to gradually and sustainably improve to a level of equivalence to the district and approach the state average in terms of percent proficient on state tests of ELA.

It is notable that these two schools, Farmington (non-exited) and Fall River (exited), were the two schools that showed consistent and sustained gains in both math and ELA proficiency rates. Wayne (exited) had strong gains in math and showed some signs of upward ELA rates from 2011 to 2016, and in 2016 nearly matched the performance of Farmington and Fall River, however, Wayne dropped in 2016-2017, while Fall River and Farmington spiked to close the gap with the district.

This suggests that two of the six schools, Farmington and Fall River, have shown consistent signs of improvement on state test scores indicating a positive trajectory, and have been able to, generally speaking, sustain those gains for a period of roughly 6 years. However, it is also worth noting that Fall River has had the lowest levels of Free and Reduced Price Lunch population throughout this time period, and Farmington has had the lowest proportions of non-white students, suggesting that they may have comparatively favorable demographics and less challenging student populations than other priority or former priority schools in the sample. Wayne also showed some signs of improvement with strong performance in math and inconsistent performance in ELA. Of the other schools, Seminole and Sunset showed initial gains in both ELA and Math, though failed to sustain them and fell back below the district and state proficiency rates, while Victory has consistently performed at the bottom of the group and has failed to close the gap with the district and state at any time over the past 10 years, with the exception of a recent surge in math proficiency that nonetheless remains well below district and state averages. It is also notable, however, that Victory has the highest percentage of FRL students of all schools in the sample, which likely explains some of these performance gaps.

ACT Composite Scores

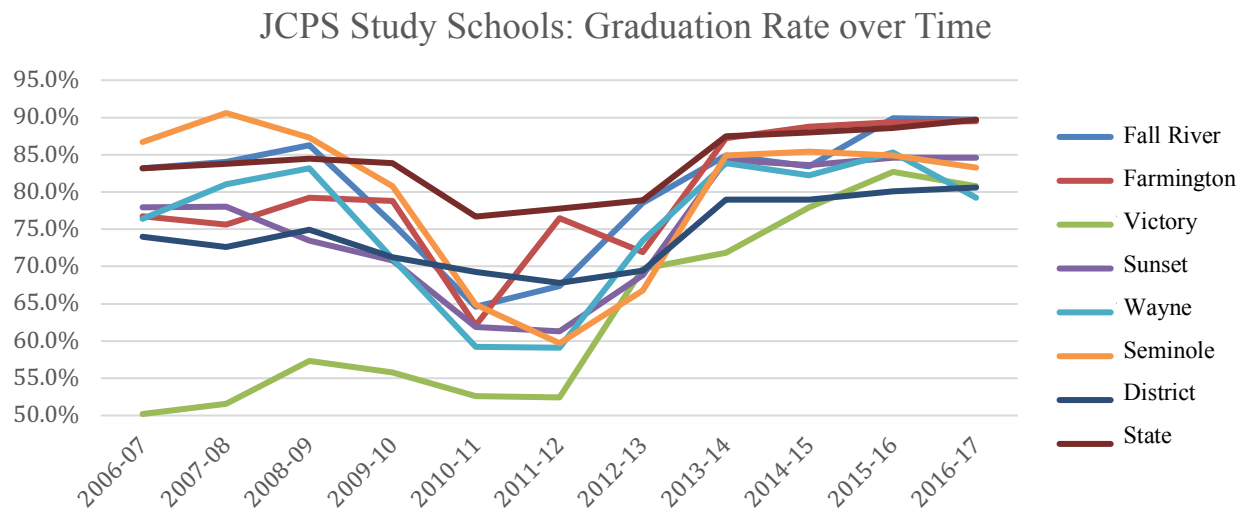
The ACT Composite Score trend lines in all six schools are flat compared with fluctuations in proficiency rates on state tests. The only exceptions are Seminole, which experienced moderate declines of 1.4 points since 2010-11, and Farmington, which generated 1.5 points of growth since 2009-2010. The district made gains of .6 and the state made gains of .7 over this same time period. Thus, Farmington, with the largest gains, closed the gap with the district by .9 points and the state by .8 points. This may suggest some indication of academic improvement. However, caution is warranted. While applied to individual students and not mean scores, it is worth noting that the Standard Error of Measurement for the ACT composite score is 1.25 (ACT Technical Manual, 2017). Farmington's gains relative to the state (.8) and district (.9) both fall below this Standard Error of Measurement. This suggests that even the Farmington gains should be interpreted conservatively and the scores for the rest of the schools are ostensibly flat over time, when accounting for the variation and growth that is occurring in the district and state and may be attributable to other contextual factors or changes in the test design. While its ACT growth was modest, it may also be worth noting that Farmington, a school that has failed to exit priority status, made the largest gains in ACT Composite Score growth of all schools in the sample.



Finding 3: Graduation rates are on the rise, but are easy to manipulate.

While the academic performance of the schools in the sample varies, all schools in the sample demonstrated roughly similar trends with regard to graduation rates. All schools improved their graduation rates, and depending on when one begins counting, all or most schools improved graduation rates more than the district and state average, which have both also improved significantly over the past 7 years. All six schools have generally sustained these gains. It is worth noting that Kentucky changed the calculation method for graduation rate from AFGR (tracks freshman-to-graduate populations) to ACGR (tracks specific cohorts) in 2010-11, which explains a drop by all schools and the district and state averages. As cohorts were tracked more effectively, graduation rates returned to historical norms by 2013-14. The shift had its most significant impact on school populations with higher rates of student transience, which may explain why the schools in the sample dropped more precipitously than the district and state averages in 2010-11.

From 2010-11 performance (the first year on priority status and using the new calculation method) until 2016-17, Victory, Farmington, and Fall River, made the largest improvements in graduation rates, improving 17%, 16%, and 14% more than the district respectively. However, if one begins tracking in 2009-10, the year before being named priority schools and prior to the use of the new calculation method, Victory remains the clearest strong performer, improving its graduation rate by 16% more than the district and 19% more than the state, while the growth of the remaining schools is far more modest with only Fall River (+4.5%), Sunset (+4%), and Farmington (+1%) showing positive growth above the level of the district's improvements.



NOTE: Kentucky changed the calculation method for graduation rate from AFGR (tracks freshman-to-graduate populations) to ACGR (tracks specific cohorts) in 2010-11, which explains the drop. As cohorts were tracked more effectively, graduation rates returned to historical norms by 2013-14. The shift had its most significant impact on school populations with higher rates of student transience.

In terms of overall performance rather than improvement, the schools have relatively little variance, all with graduation rates between 79-90%. Despite its strong gains, Victory still falls consistently near the bottom at 80.8%. Fall River and Farmington achieved the highest performance, significantly exceeding the district average and matching the state average graduation rates at 89.7% and 89.5% respectively.

While these numbers appear to tell a positive story of improvement and are certainly – on their face – a positive sign, school leaders also pointed to the degree to which graduation rates are able to be manipulated. "Track-backs" (the process by which students are tracked for inclusion or exclusion from graduation cohorts) became a regular practice, and it appears that schools became more proficient at both counting and following up with students, as well as creating opportunities for credit recovery. Though a case can clearly be made that more students graduating from high school is both a public and individual good, the degree to which it is an effective measure of school improvement remains questionable.

Finding 4: Survey Data Generally Confirms Test Score Trends

Evidence from the Comprehensive Survey administered to students in the district tells a similar story. Farmington, Wayne, Victory, and Fall River all had aggregate scores on our school improvement index above the district average, where Farmington (79.28) and Wayne (76.17) had the highest scores. These same four schools also showed positive net changes on the improvement index, with Wayne (+14.61) and Farmington (+10.13) showing the largest improvements in composite scores. Notably, the majority of these gains appear to have been powered by very large gains in improved leadership scores, where Farmington (+27.0) and Wayne (+30.57) moved from the lowest scores to the highest scores among the sample of schools on this measure. It is notable that

Wayne (+8.29) and Fall River (+7.54) also showed substantial signs of improvement in school culture, while Victory (+3.22) and Farmington (+2.68) showed more modest gains. The modest growth of Farmington, however, could be the result of already quite high culture scores, which may limit room for improvement. With regard to instructional capacity, Wayne (+4.96) had the highest growth, followed by Victory (+3.66), Fall River (+3.09) and only minimal growth from Farmington (+0.70). Once again, however, as with the culture scores, Farmington's instructional capacity scores were already the highest in the sample and well over the district average, suggesting the possibility of less room for improvement on this measure.

	Leadership			**Culture**			**Instructional Capacity**			**Aggregate Scores**	
	Pre	Post	*Change*	Pre	Post	*Change*	Pre	Post	*Change*	Net Change	Avg Post
Farmington	56.67	83.67	*27.00*	71.59	74.27	*2.68*	79.21	79.91	*0.70*	10.13	79.28
Wayne	52.83	83.40	*30.57*	61.75	70.04	*8.29*	70.11	75.07	*4.96*	14.61	76.17
Victory	72.13	81.60	*9.47*	63.32	66.54	*3.22*	71.04	74.70	*3.66*	5.45	74.28
Fall River	67.97	75.37	*7.40*	63.19	70.73	*7.54*	70.61	73.70	*3.09*	6.01	73.26
Sunset	82.47	79.97	*-2.50*	74.73	64.92	*-9.81*	78.83	70.74	*-8.09*	-6.80	71.88
Seminole	65.77	68.63	*2.87*	67.47	66.43	*-1.04*	74.72	70.64	*-4.08*	-0.75	68.57
JCPS	75.70	75.37	*-0.33*	72.00	70.73	*-1.27*	76.53	72.92	*-3.61*	-1.74	73.00

In conclusion, we find that exiting from priority status is a poor measure of improvement that is as much about luck and a school's savvy in gaming the accountability system as it is about improving key performance indicators. In terms of quantitative measures of improvement or turnaround consistently used in the research literature, four out of the six schools showed what can be regarded as sustained improvement as measured by state test proficiency rates in either ELA or math (Farmington, Fall River, Victory, and Wayne), while only two made significant improvements in both subjects (Farmington and Fall River). Considering only math scores, three schools (Fall River, Farmington, and Wayne) can arguably be considered examples of sustained "turnaround," as they meet both criteria of more than 10% improvement and meeting or exceeding the state average on state test proficiency rates, though Farmington's math performance did not consistently meet the mark in recent years. Fall River and Farmington also come close to hitting this mark in ELA, improving by more than 10% and meeting the district average, though remaining slightly below that of the state. However, no schools showed rapid or dramatic growth on ACT scores, with Farmington as the only school showing what appears to be modest improvement above the positive trends in district and state averages. Most schools showed signs of improvement on graduation rates, improving more than the district and state, with Farmington and Fall River achieving the strongest performance. Finally, with regard to student survey scores over time, Wayne, Farmington, Fall River, and Victory all showed improvement, with the strongest overall scores and growth from Farmington and Wayne, and above average scores and moderate growth from Fall River and

Victory. Thus, a fairly consistent picture emerges in which Fall River and Farmington have shown the strongest signs of sustainable improvement and performance on most key indicators and can arguably be considered examples of turnaround, while Wayne – and to some extent Victory - also show some positive signs of improvement. However, Sunset and Seminole, on all measures but graduation rates (and Seminole's math proficiency rates) show signs of decline or failure to improve.

Project Question 2: What factors and approaches appear to distinguish schools that improved more compared with those that improved less?

Based upon the analysis and findings above, we conducted a cross-case analysis of those schools that had improved more (Fall River and Farmington) to those that had improved less (Sunset, Seminole, and Victory), with Wayne falling somewhere in the middle. Evidence across and between these two groups of schools was compared and trends and themes identified to generate the findings below.

Finding 1: Strong leadership is the sine qua non of improvement.

Leaders in schools that demonstrate sustained improvements set the tone for turnaround efforts by signaling the need for change, setting a culture of high expectations, articulating clear goals and 'collective commitments' around instructional and culture improvements, and motivating broad engagement, sustained focus, and continuous improvement toward these goals.

Leadership Efficacy

One area in which this was particularly visible was in the degree to which leaders facilitated shared faculty commitment and sense of ownership. Farmington provided a strong example; one administrator said of a former principal:

"Mr. Westin (the former principal) really believes in distributive leadership. So there were no decisions made about the direction, the mission, the vision of the school without full teacher input and consideration of all of their feedback. And that is still the model we use today."

At Fall River, there was a similar sense of faculty and administrator collaboration and support, which centered around a deep and sustained focus on the philosophy and effective practice of Professional Learning Communities, guaranteed recovery, and a major push for continuous development of teachers and their instructional practices through an iterative academic model and robust coaching and walkthrough program.

Conversely, inconsistent goals, erratic leadership, and inadequate follow-through undermined change efforts in schools that showed less improvement. At one school that struggled to maintain a consistent focus on key goals and provide effective execution, a set of teachers at Sunset High School described the situation as follows:

"The biggest issue (here) is consistency. Every year that I've been here, our focus has been something different. Focus on this, and then it doesn't work, so it changes. And then

our focus is this, and then it changes...we don't ever seem to stick with anything. The rules change. We don't have the same rules or the same expectations or the same strategies. And this year, I'm really starting to see a change in that."

Here the teachers describe the problem of unfocused and unsystematic change efforts and how this created a lack of follow through. The same teachers later described how students became conditioned to this lack of consistency in new policies and eventually ignored or rejected changes that they regarded as fleeting. This same theme was reflected in the comments of the students, when speaking about the extent to which the school enforces policies and rules:

Student 1: Probably [staff does enforce policies] at the start of [the year]. But now they just slack off with it and just let people get away with things.

Student 2: I would say that every beginning of the year they do enforce them a lot, but they don't stick to it, which I think is kind of a downfall for our school. Cause students start to slack off. And I feel like that needs to...get fixed.

Similarly, they described how inconsistency in the focus of school leadership created an accountability vacuum that affected every level of the school organization from assistant principals to teachers, and undermined the effectiveness of improvement efforts. At Sunset, for example, one teacher said:

"I think the APs would have loved that kind of consistency previously, because we lean back on the APs for accountability and the APs lean back on the principal for accountability, and they went to lean back and there was nothing holding them up previously."

In sum, both in the positive examples where improvements were demonstrated and in the clearest examples where effective leadership was missing, one can see the need for consistent, clear, and unifying leadership, and the pernicious effects if this leadership is ineffective, inconsistent, and fails to create a sense of accountability and follow-through.

Consistent Leadership Team

Schools that showed the most improvement also demonstrated a high degree of consistency in the composition and staffing of the school leadership *teams*, namely the principal and assistant principals. Rarely were improvements a one person show. In general, minimal turnover among leadership teams, following the dramatic and tumultuous changes of restaffing, appeared to allow for a new vision and norms to take deeper root. This consistency of leadership allowed teams to continue improvement efforts along similar lines and tended to garner strong support from faculty, staff, and other administrators.

Consistency does not necessarily mean no turnover among the leadership teams. In fact, each of the schools that have demonstrated significant and sustained academic improvements had the original "turnaround principal" transition out within a few years. However, in each case the principal was replaced by a member of the leadership team at that school, an assistant principal who had multiple years of experience there and who continued the improvement orientation, strategic focus, and often employed a similar leadership style to that of the previous principal. Stakeholders in these schools consistently described the new leaders as

similar to or in-line with the preceding leader, and emphasized the seamlessness of the transitions and the buy-in and support of the school communities. This was the situation described clearly by the leadership team at Fall River, where a new principal was assigned in 2010 as part of the turnaround and restaffing model, and when this principal left two and a half years later, an assistant principal was promoted to the principal role:

The transition was pretty seamless, because Nate (the current principal) was really at the forefront of the instructional mission of the school... And Nate really was very much involved in... the conversations that we were having. They were coming from him. So the transition was much more seamless than you would imagine [with a] new principal. It's not like everything changed. I think he was clearly the one who needed to take the job, and everybody trusted him and he had a lot of credibility anyway. It wasn't disruptive to have a new principal.

This was also the experience of both staff and students at Farmington. As one student noted:

We didn't really like losing Mr. Westin, but you wouldn't want no one else. We're going nowhere else other than Ms. Corbin. She was a good fit. And Ms. Corbin has been in Farmington's life for probably 15 years at least. So they knew, there's no better person for the job than Ms. Corbin. She's been, I mean, she's doing great at it.

Thus, in both cases of schools with the strongest evidence of improvement, leadership transitions were regarded as "seamless" and in deep continuity with previous positive improvement efforts and direction.

In contrast, when there were more frequent transitions at the principal or assistant principal positions, or staff did not fully support new leadership appointments, it appeared to have an adverse effect on school performance and, in particular, put pressure on relationships between the school leadership and staff. Referring to recent transitions of two assistant principals at Seminole, one teacher commented:

Transition's hard...And you're still trying to build, like, here's your brand new evaluating supervisor, and it takes a while to build that trust and get to know them when... you loved the predecessor so much.

Here a teacher describes the time it takes to rebuild trust with new supervisors and suggests that these transitions create additional burdens. Thus, across these diverging experiences, there is evidence of the importance of consistent teams, including the importance of both principals and assistant principals, and effective succession planning and intentionality through leadership transitions.

Cohesive Leadership Team

There were some indications that effective leadership for school improvement in struggling high schools is not only about the efficacy of the individual leaders or their consistency in their positions and throughout transitions, but also about how effectively the leadership teams work together. The school leader at Sunset summarized this saying:

I think cohesion is huge – a team mentality among administrators. I've been some places where it was divisive, and you just don't get

traction on anything... So a lot of places you look at the APs and say "I don't know how strong they are instructionally" or "I don't know how strong they are on discipline" – but if you have that cohesion, they end up working in their strengths and I think they will be successful where they maybe wouldn't if they're not the strongest overall.

Here the focus is both on effective team dynamics and collaboration, without which leadership efficacy can be significantly compromised, as well as the potential of using diverse skill sets on a team in a complementary fashion to help drive performance. Leaders at Fall River described something similar in the way the principal at the time of turnaround and restaffing intentionally recruited a strong leadership team of assistant principals with complementary skills and empowered them to problem solve and help drive the change process.

Finding 2: The Formula: (Vision x Instruction) + (Vision x Culture) = Improvement, however, it appears that Instruction^2 > Culture^2

Few schools seemed to show strong and consistent evidence of improvement on all facets of our conceptual framework, but a number of schools showed strength in one area and gaps in other dimensions. These variations may correspond to the differing approaches to school improvement pursued by the leadership teams. Given the small sample size of case study schools, it appears that variations in this improvement strategy and focus may relate to variations in school performance, with possible emerging patterns. The school that hit on all dimensions of the improvement formula in a robust and timely manner appeared to have the strongest signs of improvement. The school that focused more narrowly on instructional capacity achieved nearly as strong improvement. The schools that almost exclusively drove improvements in school culture with an inadequate focus on instructional capacity showed signs of lagging performance and less improvement.

Farmington: Following the Improvement Formula

Of all the schools in the sample, Farmington most consistently hit on all drivers of improvement from our conceptual framework the most fully and throughout the period under study (2010-2017). Farmington also had what appears to be the strongest and clearest evidence of improvement among all of the key indicators (ELA and Math proficiency rates, ACT composite scores, and graduation rates). Farmington most closely approximates the improvement formula noted above, where shared vision drives improvement through a dual emphasis on instructional capacity and school culture.

Farmington's mission and vision were the source of a continuously refined, shared orientation to educational improvement that grounded and animated changes in school culture and instructional improvements. As an administrator at the school said:

"We started with mission and vision... but we were 100% inclusive in that mission and vision in including all of our staff so that there was some ownership in that. Our mission is to prepare each child for post-secondary education. Our vision kind of follows after that. And we have a set of collective commitments that were determined by our staff...We review our mission, vision, and collective commitments every year before school starts and again at mid-year."

As evidenced here, Farmington's approach deeply engaged staff (and students, as was apparent in other interviews) in articulating and annually reflecting upon and refining a shared vision embodied in a set of collective commitments. These were then manifested in specific programmatic decisions to drive improvements in culture and instruction.

The leadership was also concurrently focused on continuous improvement in the areas of *both* school culture and instructional capacity. Farmington leaders started by strengthening culture, then quickly added a focus on instructional improvement with a robust emphasis on PLCs. In an iterative fashion throughout the ensuing years, key programs, activities, and approaches were systematically initiated in *both* the areas of culture change (i.e. efforts to strengthen students' executive function, improving systems of support and interventions, and the development of a mindfulness program to mitigate non-academic barriers to learning) and refinements and improvements to the instructional program (i.e. the implementation of an academic model through the Fundamental Five, a robust system of observation and coaching through power walks, careful redesign of the system of intervention, strengthening literacy across the curriculum). While other schools hit on elements of all three components of this improvement formula to some degree, no school emphasized and demonstrated effective change and a continuous improvement focus in all three as fully as Farmington, and the school's performance reflects this.

Fall River: Doubling Down on Instruction

Fall River also demonstrated impressive improvements in ELA and Math proficiency rates and graduation rates, though failed to show significant gains on the ACT composite score (.5 growth from 2009-10 to 2016-17), which was less than the district and state growth over this time period. Fall River tended to err on the side of focusing on instruction, showing less of an emphasis on grounding changes in a clear and compelling shared vision or a continuous focus on strengthening school culture. While it appears that the relatively weak focus on culture may be creating some fissures in the improvement edifice, Fall River's profound focus on strengthening instruction over the past seven years has yielded signs of improvement that are still among the strongest in the sample.

Fall River, while impressive in many respects, seemed to replace an animating mission and vision with a narrative of success and a more technical orientation defined by the tenets of Professional Learning Communities. When asked about the mission, some teachers and school administrators seemed not to know it or responded with ambivalence: "Don't love our mission and vision, to be honest" (Teacher, Fall River). Instead, school leaders spoke passionately about a professional learning community "philosophy," which supplied a shared orientation for the school. However, the PLC "philosophy" was expressed in technical, not visionary terms; the stuff of strategy, not values and beliefs.

Similarly, when asked to identify a slogan that embodies what the school is all about, students repeated the slogan posted on signage around the school: "The Creek is Rising." This phrase connoted the growing success of Fall River and celebrated its improvements. This was part of a broader "success narrative" and brand consciousness proffered by school administrators. While celebrating improvement is both appropriate and potentially motivating to school stakeholders, it is not a vision. In this way, the vision at Fall River is at best implicit, and at worst, technocratic and ostensibly absent.

With regard to improvements in school culture at Fall River, there was clear evidence of improvement, but also large gaps and a distinct lack of focus on certain aspects of school culture. There was ample evidence of a strong staff culture and sense of *professional community*. There was also abundant evidence of *support* through guaranteed recovery, the use of data to identify students in need of intervention, and the robustness of PLCs that drove this academic support process. With regard to creating a *caring* environment, students emphasized mostly caring teacher relationships with young teachers who take an interest in their lives and primarily communicate a sense of "academic care," namely, they recognize that teachers care that they get good grades and will go the extra-mile to help them. However, responses about the degree to which teachers care and are trustworthy were somewhat mixed and muted compared to responses from other schools in the sample.

Fall River showed considerable room for improvement, however, around the norms of *safety* and *belonging* and a broader understanding of *care* rooted in a strong focus on positive adult relationships and care for the holistic needs of the students (i.e. socio-emotional well-being). This was most powerful and notable on the issue of safety. School personnel noted that safety had recently become an acute problem at Fall River:

"I've been in at-risk high schools for 17 years. I've never felt unsafe until certain points this year. Like, we are not able to control this element any more. I would say that's our biggest issue this year."

When asked about discipline and more proactive means of engaging students and creating a positive and nurturing culture to combat safety concerns, one teacher responded:

"I think that is a real challenge for our school, honestly. It's not something that really has been an interest of our leadership. It's not something that captures attention, dealing with discipline. That's like the yucky stuff. Let's talk about instructional innovation, let's talk about collaboration, let's talk about data-based decision-making. And then I have a kid that likes to hit people in the face in the cafeteria in the morning. That's the immediate but it's not the essential. However, the immediate is become so deafening that it is distracting. It really is."

This suggests that the interests of the Fall River school leadership team are clearly oriented towards improving instructional capacity at the expense of a focus on some aspects of school culture. These oversights appear to be a growing threat to performance. However, this focused doubling down on instruction, what we are calling "instruction squared," still allowed Fall River to be one of the two schools showing the most consistent indicators of strong improvement.

Wayne: Doubling Down on Culture

Finally, there was a group of three schools, Victory, Wayne, and Seminole, which failed to show comparable academic improvements that all followed a rather similar formula. In each school there was a strong and sustained emphasis on improving culture, while a focus on strengthening instructional capacity significantly lagged or appeared to receive comparatively less emphasis.

This path was perhaps most evident at Wayne, where school culture was extremely positive and strong, and appeared to have

remained the predominant focus since the school entered priority status. An administrator at Wayne described their focus for school improvement as follows:

"We had to work so hard on the relationship piece, which I still think is very important. On our evaluation framework it's Domain 2 – creating a culture of respect and rapport. So even when I first came to Wayne as AP, all of our walkthroughs, all of the feedback we were looking for, it was basically Domain 2. Are you building a relationship with kids? We've got that going on now, and we're slowly turning our attention to more Domain 3 – the execution, the rigor, the engagement of the lesson."

Here it is evident that the school has had its predominant focus for the past 7 years on creating a culture of respect and rapport with students, and is now gradually beginning to increase its focus on strengthening instructional capacity, namely execution, rigor, and academic engagement. The primacy placed on culture was also consistently reflected in the comments of teachers: "The climate and culture of the school – that's foremost in importance." This focus was also manifested in the extremely strong positive perception of the students. When asked if they trust their teachers, one student responded:

"The level of trust is astounding."

When asked about the quality of relationships, the following response was highly indicative and echoed by all students:

"I believe they are really caring. They show that they really care."

To emphasize the intensity of this sense of care that the students perceive, one student passionately claimed in the midst of the focus group:

"There are multiple teachers here that would die for any of their students!"

The depth and pervasiveness of the evidence of this ethic of care, support, safety, and belonging at Wayne was unique in the sample of schools under study. According to one administrator at the school:

"The focus on culture hasn't gone away. It's always the main thing. It's always the main thing. It always cracks me up how sometimes districts will prioritize an initiative for three years and then it's crickets. People will be like 'oh, it's just another thing.' No. It's the thing. Culture is the thing. That hasn't gone away."

This evidence points to a powerful improvement in school culture at Wayne and one with potent results in terms of student engagement in and connectedness to the school. However, it also suggests a rather long period where the school focused almost exclusively on culture and far less on improving instructional capacity. Instructional quality appeared highly variable and consistently weaker than in higher performing schools in the sample. While improvements in Wayne's math performance and graduation rates are evident, performance in ELA has lagged behind Fall River and Farmington in recent years after trending closer to them for several years. This may be an indication that improvements in culture can only take you so far and that a concurrent focus on instructional capacity is necessary to drive academic improvement.

Evidence from Victory seems to affirm this interpretation. Victory had a principal change in 2013, three years after being named a

priority school. Feedback from current school administrators suggested that there were glaring challenges and weaknesses related to school culture at that time, which became the immediate focus of the current principal. Victory spent considerable effort over the next few years creating a positive culture and sense of pride in the school, with an emphasis on discipline, positive behavioral management, and an enhanced sense of belonging, care, and support. Like Wayne, the school leader appeared to be passionate about these issues. However, unlike in Wayne, there has been a more intentional pivot to focus on instructional improvement (Fundamental Five, Power Walks, Math recovery) once school culture had been effectively stabilized. This more recent emphasis on instruction appears to coincide with positive trends in academic outcomes, particularly in improved Math proficiency rates over the past few years.

In contrast to Wayne and Victory, Farmington and Fall River both emphasized instructional capacity more and sooner. While both sets of schools addressed a culture and vision reset, this was followed immediately at Farmington and Fall River with major investments in time and leadership focus on systems of student support, professional learning, instructional frameworks, walkthroughs, and increases in the use of data, recovery, and improved instructional quality. These different levels of emphasis on instruction were apparent throughout the interviews in what school personnel emphasized, were visible in varying levels of quality instruction noted in the walkthrough observations, and seemed to correspond to differences in the relative academic improvements of the schools on key quantitative indicators.

Finding 3: The quality and stability of staff is a major factor affecting (or imperiling) sustainable improvement.

Restaffing

In the 'turnaround' approach adopted by each of the selected priority high schools in JCPS, schools replaced the principal and up to 50% of the staff. While participants indicated that this approach was not without challenges, including a significant sense of disruption to the professional community and an influx of young and inexperienced teachers, there was nonetheless near universal sentiment that this was a critical factor in creating the conditions for improvement and opportunities for deep culture change within the schools. These words of a teacher at Wayne were indicative of the benefits: "The principal got to come in and clean house. So those teachers that you could never get to do squat and wouldn't ever do squat, we were able to get rid of." This is evidence of how restaffing fostered a staff composition that was more open and motivated, what an administrator at Fall River described as teachers being "game," open to trying new things, and what Farmington staff called taking risks and innovating. A Fall River Administrator summarized the importance of restaffing to their improvement efforts:

"It ended up being an incredibly positive move for our school. And it is truly one of those examples of – at the time it was kind of horrifying to live through. The dissention and chaos of that year, knowing that all this was taking place. But we would not have been able to see such improvement if we didn't completely remove the culture. It really ended up being a blessing because we were able to, again, re-staff and then [set] a new vision of what our school needed to be."

In this quote we can see some of the collateral costs of restaffing, words like "horrifying," "dissention," and "chaos" that describe the process. Other teachers and administrators commented on the challenges of an influx of a large proportion of new, young teachers, often with less instructional capacity and classroom management efficacy. Yet, despite these tradeoffs and serious challenges, the preponderance of teachers and leaders described the restaffing in extremely favorable terms: "incredibly positive" and "a blessing." In describing the benefits of restaffing, respondents tended to focus on enabling a culture reset and a sense of urgency, exiting staff that were recalcitrant and opposed to change, and bringing on faculty that were a stronger mission fit and open to new approaches, improvement efforts, and systems of mutual accountability.

In at least two schools, however, when the initial principal selected as part of restaffing was subsequently replaced, restaffing was no longer an option for the next principal to assume the position. In these situations, the next principal emphasized the need to counsel out staff that were not supportive of the new direction or were resistant to change. For example, one administrator suggested the need to "attract who you want to attract, but...[also] repel who you want to repel. And there are some here that I want to repel. The tightrope – the dance – is doing that without damaging culture."

This administrator spoke less about culture reset and more about basic accountability and meeting professional standards and expectations as a key factor affecting the need for staff change. Regardless, schools universally emphasized building and retaining quality staff, and sometimes removing staff that were barriers to improvement, as critical variables in improving school performance. This continued to be important to schools even after restaffing, as one student at Wayne noted:

"Every teacher has been really great. And any teacher that hasn't has already been moved, you know?"

Importantly, there were also district level policies surrounding priority schools that affected this important variable of quality staff composition.

Bypassing the Transfer List

A critical factor for recruiting quality staff, universally recognized by administrators from each of the schools, was the ability to bypass the transfer list to select and hire staff. A JCTA contract provision requires schools to fill openings from a transfer list and consider seniority before hiring outside candidates. This was regarded by school administrators, especially in high poverty and lower performing schools, as a major barrier to finding quality staff. One administrator cited the "Dance of the Lemons" saying, if you have, for example, an "English opening, you can be forced to take from the transfer list, you can't go outside of that to hire."

However, while on priority status and for one year after exiting, schools are able to bypass the transfer list to select and hire teachers from outside the district, whether new teachers from educator preparation programs or experienced teachers recruited from another school. As characterized by an administrator at Farmington:

"We have very school dependent kids here. They depend on the school, they depend on the community, they depend on their teachers to fill a lot of roles that maybe aren't typical teacher roles. So we need to be able to make sure that that's something that you're willing to take on as a teacher

in this building... If you're not that person then this just isn't the right place for you. ...And so, being able to have that option of interviewing and really finding the right person rather than having to take from a transfer list is pretty critical."

This quote describes the importance of the flexible staff hiring that this policy allows, but also points to the underlying reasoning behind it, which relates largely to hiring for fit and a strong sense of mission, what a district leader described as a *passion* for serving kids in need. Others framed this in terms of maintaining school culture and being able to avoid hiring teachers who could be toxic to a fragile culture. School administrators at schools that had exited from priority status regarded the loss of this flexibility (i.e. the ability to bypass the transfer list), as a threat and a challenge to the sustainability of hard-fought improvements.

Turnover

A challenge recognized by the vast majority of schools and participants at all levels was the prevalence of teacher turnover. Schools faced turnover challenges for different reasons. Schools that were struggling to improve seemed to face chronic turnover challenges due to teachers perceiving the school to be of low quality and regarding it as too challenging a work environment. Schools that had shown signs of improvement and created a strong and positive sense of professional community and support initially stabilized staff and reduced turnover, but eventually began to lose teachers due to promotion and recruitment by other schools for leadership positions, creating a new turnover pressure born of success. An administrator at Fall River explained:

"People want them in other schools and they want them to come in and be their instructional coaches and be their APs. So now we feel like we've trained up all these teachers to do all this work, and while they are deeply rooted here, there's a lot of opportunity for them in other places. And so, they're not leaving to go teach in different schools. They're leaving to go lead in other schools now. And so we have a new crop of teachers and it [has] created a lot of stress for us."

Teachers and administrators alike recognized that this renewed turnover - up to 21 new teachers in the current academic year at Fall River - was a product of success, but created a situation that was almost like "starting over." While new programs and approaches had been gradually layered in over a period of years and ample training invested in creating robust PLCs and certain approaches to instruction, new teachers would have to adjust to a plethora of unique expectations all at once, often while also still learning the craft. School leaders in the most successful schools pointed to this as a source of fragility of the gains they had achieved.

Strong Professional Community

Schools that had made significant improvements in culture, instruction, and professional community, began to stabilize their teaching staff and become a desirable destination for teacher transfers. This placed schools in a relatively stronger position, both by limiting the scale of turnover and by providing a stronger candidate pool of teachers as replacement candidates when turnover did occur. One teacher described this shift at Wayne:

"A big change this year is that we had like 60 teachers on our transfer in list. When we were way back when we always had more teachers leaving than were coming in, and we had

teachers that wouldn't leave. And now we have all these teachers coming in. And you sit down for these teacher interviews and you're like, 'Oh my god, how do I make a decision. We actually have some really good teachers to choose from.' And I remember the time when it was like, 'Oh my god, is this all we really have to offer? Can we call and get some more names?'"

This positive trend in teacher quality was also perceived by the Wayne students:

"The quality of teachers still to this day gets better every year."

Perhaps the strongest example of this favorable dynamic seemed to be at Farmington, which appeared to have an extraordinarily strong sense of professional community and support that fostered very strong teacher commitment, very low turnover, and led Farmington to be perceived as a desirable place to teach. One teacher, speaking passionately about his love for the school, said he would "want to come teach on the ruins of the school, even if it exploded, because of the atmosphere." While perhaps on the dramatic side, this sentiment was echoed by all teachers at Farmington. Teachers and school administrators described a situation in which very few teachers transferred out, with the exception of a small number that had done so for promotions, and a large number of teachers wanting to transfer in. "There's people wanting to come here. Last year, the transfer list – there were so many people who wanted to transfer into the building because they heard that good things were going on here" (Teacher, Farmington). Moreover, as a school that had not yet exited from priority status, Farmington still had the flexibility to go outside of the transfer list to identify teacher candidates.

Finding 4: There were five common elements of instructional improvement: 1) PLCs, 2) data driven instruction, 3) student support and intervention systems, 4) instructional frameworks, and 5) frequent walkthroughs and coaching.

The most successful schools focused intensively on the following core strategies to build instructional capacity: 1) professional community and support through well-implemented PLCs, 2) data informed instructional practice, 3) effective student support and intervention systems, 4) establishing and using a shared instructional framework, and 5) conducting frequent walkthroughs and instructional coaching.

These appear to represent a set of core practices or strategies that all schools spoke about as areas of focus and sources of improvement, even though schools showed variation in the degree to which they were implementing these practices or systems effectively. There was also significant variation in the particular details of how a practice was modified and adapted in a given school. For example, some schools used intervention periods and others used embedded recovery that was the responsibility of classroom teachers, but nearly all were committed to this underlying practice of a mastery-orientation towards instruction and multiple opportunities for intervention, recovery, and extra support for struggling students. In many instances, seemingly subtle differences appeared to have large effects on the degree of effectiveness and benefits of a practice as perceived by the school stakeholders (i.e. the incorporation of more student autonomy in the RISE intervention and extension period at Farmington). Overall, there was considerable overlap in the focus on these research-affirmed practices, but the variability seemed to lie in particular elements of program design and the effectiveness and

intensiveness of implementation. Factors that appeared to influence the degree of effectiveness and implementation quality of these core practices included the following:

- Whether school leadership teams systematically monitored and supported the practice and sought to continuously emphasize, prioritize, and improve its effectiveness and fidelity, regularly using data to monitor progress and deploying leaders to support implementation;
- Whether the practice received robust initial training and ongoing support, often from an external partner (i.e. see discussion below of Solution Tree training for PLCs);
- How intentional and thoughtful the leadership was in designing the program, often seeking external examples or models for guidance and inspiration (i.e. see discussion below of RISE and mindfulness programs);
- How effectively leadership facilitated the understanding and ownership of key stakeholders, particularly teachers and students, by involving them in the decision-making process, training opportunities, rationale for the program, and the process and evidence for selecting it (i.e. see discussion below of mindfulness program).

Schools sometimes struggled to maintain these core practices or maintain the quality and fidelity of implementing them well - often as a result of leadership team transitions, ineffective leadership, or high rates of teacher turnover. For example, following a recent leadership transition, one administrator at Sunset High School noted:

"Right now our intervention capacity with academically struggling students is very, very low. It was a casualty of the leadership void over the summer... we aren't really pushing on the PLC front, looking at data, and everything else...."

It appears that effectiveness in these core practices requires constant vigilance, sustained focus, and an effort to avoid distractions that could detract too much attention away from keeping these core instructional systems strong.

Finding 5: External support played an important role in effective improvements.

A final theme in the schools that had improved was the importance of external support. The schools that had shown the strongest signs of improvement also had a strong support mechanism, in one form or another. This tended to fall into one of two categories: strong state support or strong support from external consultants.

Fall River was the clearest example of strong state support. The Education Recovery Leader (ERL) assigned to Fall River was consistently credited with driving the improvement process, teaching and coaching the leadership team, holding leaders accountable, and doggedly pushing the school to focus on the right things to drive improvement and increase the index scores. One Fall River administrator summarized her critical role:

"She knows all the things, she knows all the people, and she was a powerful force for moving us towards standards based education, professional learning communities... I think we got really lucky."

This same administrator explained the critical role the ERL, who was at Fall River for three years, had in instructing the leadership team how to do the work of improvement.

"She kind of trained us in the things that needed to be said and the things that needed to be done. Because I was just a regular assistant principal, I did discipline all day. I wasn't trained in turnaround principles. I didn't know anything about professional learning communities. I was suspending kids, and that's it. So that was, I think, a key component of the shift."

The leadership team at Fall River was already noted as a strength and a driver of the school's improvement. It is notable that the effectiveness of the ERL, over a three-year period, was largely credited with building this instructional and improvement leadership capacity, such that upon her departure, they felt capable to continue to lead and sustain the work on their own.

However, Fall River was unique in this respect. While some of the other schools in the sample noted that their ERLs and ERSs were generally more helpful than not, no other school credited with much of their improvement trajectory to their ERL the way Fall River did. This appeared to be a human capital question, where the ERL assigned to Fall River may have been unusually effective and dynamic.

The other clear examples where ample external supports appeared to be playing strong roles were with regard to external consultation support. There was clear evidence for the efficacy of this approach at Fall River and especially at Farmington. Both Farmington and Fall River sought out a robust consultation relationship for their training and on-site consultation support for PLC implementation. This was regarded by both schools as overwhelmingly positive and impactful.

Farmington appeared to be particularly adept at seeking out and finding third party support mechanisms for initiatives that they wanted to implement. Two teachers reflected on the areas in which they had engaged third party support:

Teacher 1: Fundamental Five... mindfulness... there was something else too. There were a lot of outside consultants.

Teacher 2: Well the whole PLC thing. We were sent to PLC training, to Solution Tree. Oh my gosh. That was phenomenal... I thought it was. I want to go back.

For mindfulness programs, Farmington sent teachers to a workshop at Harvard and engaged in a collaboration with the Holistic Life Foundation out of Baltimore to support training for students and staff. They visited a school in Florida as inspiration for their design of the RISE program. They also found a consultant for the Fundamental Five, though this appeared to be a less effective resource. A sign of their confidence in their own vision and direction, Farmington leaders relied less on external support to drive improvement strategy and accountability, but instead set their own strategic direction and proactively sought help when they wanted it and from the places they felt they could most effectively find it.

Finding 6: Demography is (or at least contributes to) destiny.

There is an oft-repeated political trope that a student's zip code should not determine his destiny. In many parts of the country, however, student outcomes are closely linked with demographics. In JCPS, voluntary busing to enable racial desegregation prior to the PICS decision, and "resides areas" based on socioeconomic status after the PICS decision have attempted to prevent an overconcentration of disadvantaged students

in any one school. As one administrator noted, however, over time, rich areas of Jefferson County have gotten richer while poor areas have become poorer. "Where they had this threshold of diversity that they tried to keep schools in, the higher deviations or lower deviations on that bell curve have moved progressively outward" (Administrator, Sunset). Because of the legal history of busing in Jefferson County and the Supreme Court's involvement, the district has been slow to react to changing demographics. As the administrator noted: "the student assignment plan (resulting from) the PICS decision – it's still very much impacting this district." Indeed, multiple administrators noted that the busing policy actually had an adverse effect on their ability to cultivate a sense of community around the school. In some cases, families and students had to travel an hour to and from school, limiting their participation in after-school events and activities.

These contextual antecedents – demographics, busing, the distance many students live from their schools – all impact school performance despite school improvement efforts. Five out of the six schools in this study had increased in student enrollment over the past four years, half had seen increases in the percent of students qualifying for free or reduced lunch, with two increasing more than 5 percentage points, and all six had seen increases in the percentage of students identifying as non-white. As one administrator presciently observed: "Social capital, right? People with it can learn to play the system (when) you provide school choice. And those with [social capital] manage to use it and those without it get relegated to where they get relegated to." With regard to the changing demographic landscape, the administrator pointed out that some schools might have racial diversity due to a population of poor white students, "but not economic (diversity). And they're one and the same." In many ways, the schools in this study not only work to counteract the academic deficiencies their students may have, but also to overcome the structural barrier of concentrated student poverty.

Finally, it must be noted again that the two schools with arguably the most favorable demographics in the sample in terms of predictors of academic achievement – Fall River, with the lowest rates of students qualifying for Free or Reduced Price Lunch, and Farmington, with the lowest percentage of minority students – were also the schools that made the most improvement. While it appeared that these schools were among the most effective in their improvement efforts, showing progress on key drivers of improvement as defined in the research literature, it is impossible to disentangle possible benefits stemming from their demographic composition (i.e. peer effects, school culture, and possibly a less challenging student population) from the efforts of leadership with regards to programs and processes in considering the effects on these schools' performance.

Project Question 3: Across all six schools in the sample, what strategies or programs seem to contribute to improvement?

While a first phase of analysis was to compare schools that had improved more with those that had improved less, which yielded the set of findings above, we also recognized that there were pockets of improvement and promising practices to be found in most of the schools in our sample. As noted in the previous finding, these practices were often common to many schools and are supported by the research literature on school improvement. However, there were several particular practices or programs that stood out in our analysis. These approaches emerged either due to the frequency of their mention by multiple stakeholders, the robustness of the details offered, the intentionality and thoughtfulness of the program design, or the perceived value to stakeholders. These programs fell into three broad categories: 1) intervention and recovery efforts, 2) instructional capacity building strategies, and 3) a culture of care and support. While we will briefly describe the general trends and note findings or examples from multiple schools, we will highlight a few programs in greater detail that stood out as particularly strong and effective as possibly worthy of replication.

Finding 1: Intervention and recovery systems provided robust student support.

Every school in our sample that had shown strong academic performance in recent years placed an emphasis on using student data and providing extra support to struggling students through some form of intervention period or in-class recovery. All pointed to the goal or commitment of having all students master standards-based content. Schools used various data sources - including benchmark assessments, common formative assessments, nationally normed standardized tests, ACT prep tests - to monitor student learning. Most schools interpreted data at regular intervals, ranging from weekly to about monthly, most often through PLCs, department meetings, and occasionally through some form of data days. Initially, most of the schools had after-school recovery opportunities, but funding for after school busing was withdrawn and many schools reported that the neediest students were not staying after for extra help. Thus, schools implemented support structures in one of two forms: Fall River and Seminole used embedded recovery, while Wayne, Farmington, and Victory used an intervention or recovery period during the day. Several schools also used some form of advisory system (Victory, Farmington). Victory also implemented what appeared to be a particularly effective recovery course in math, which covered content from 8th grade through senior year to help students reach proficiency on state tests and prepare for the ACT.

It is worth noting that Fall River, which showed comparatively strong signs of improvement, placed an extremely strong emphasis on "guaranteed embedded recovery." This was a collective commitment and was mentioned by nearly every adult we interviewed. A commitment to recovery was reinforced through PLCs and learning walks, and appears to be an effective mechanism for Fall River. Similarly, CAT time at Wayne appeared to be rather effective, in that students felt supported and the school showed evidence of not letting students fail, though according to some leaders, perhaps to a fault. There was a growing concern about students becoming acclimated to a culture of retakes and multiple opportunities for mastery, and a possible attendant reduction in

responsibility, adequate preparation, and the ability to perform in less supportive environments (i.e. college).

Perhaps the most unique and widely appreciated program, especially by the students and administrators, was the RISE program at Farmington, which we wish to feature as a model approach to the use of recovery periods and will describe in greater detail.

RISE originated when school leaders came to the conclusion that graduates of Farmington were not persisting in college because of inadequate levels of executive function and self-regulation. It was perceived that their approach to student support was inhibiting this skill development by not demanding more student responsibility. In response, Farmington leaders sought a new approach to recovery periods that could begin to build these skills. A school administrator explained:

> We studied our transition data from high school to college and discovered that a lot of our kids transition to college but they really struggle in that first year, and that determines whether they stay in college or not. And we feel like a lot of that has to do with the fact that when they're here we have so many supports built in, and it's so structured for them that they leave us and don't know what to do with their time. They don't know how to go get the help that they need because we've always been the ones who have determined they need the help... So, we've really been working on executive function and self-regulation.

This concern on the part of Farmington leaders, that proscriptive student supports were not adequately helping students be prepared for life after high school, was very similar to concerns expressed by leaders, teachers, and students at other schools in the sample.

The inspiration for the RISE program was a school in Florida, West Port High School, that Farmington leaders read about for its use of an open-campus "power hour." Farmington sent a team of faculty and administrators to visit West Port and adapted the concept to their context. Farmington leaders felt that their students needed help setting short-term goals and monitoring their progress towards these goals on a weekly basis, which they incorporated through the addition of a weekly advisory period.

The aim of RISE is to build key skills – executive function, self-regulation, goal setting, time-management, and proactive help-seeking – that Farmington teachers and leaders believe are necessary for students to succeed after graduation. RISE seeks to build these skills by giving students more autonomy and demanding more responsibility. The program functions as a daily afternoon extended lunch block of sixty minutes, utilizing the open campus concept. Students can go wherever they want or need to go within the building and teachers are available for support, recovery, tutoring, enrichment opportunities, clubs, or just hanging out. RISE is available for all students, from Freshmen to Seniors.

The model is driven by Farmington's approach to RTI and the use of common formative assessments. Late every week, teachers give a common formative assessment, and the results of these formative assessments are shared with all students during Monday classes. On Monday afternoon, rather than the usual RISE period, students go to an Advisory period where they develop goals and a plan for the week in consultation with their advisor. Both student

and advisor get a carbon copy of the plan for the week. The rest of the week has the 60 minutes of daily RISE time, during which students are responsible for executing their plans and holding themselves accountable for meeting their goals.

The specific activities and opportunities within the RISE period vary widely. As one student summarized:

"We get an hour to go and make up any class that we need help in, any enrichment, or we can do an academic club, or something fun if we have nothing to make up. Or we can take the full hour for lunch."

Teachers noted that sometimes students would just come to hang out, providing opportunities for more informal relationship building. Administrators and teachers also noted that RISE allows for increased extra-curricular participation, especially helpful given the transportation barriers that inhibit participation for many students that are bused from across town. Finally, teachers noted the benefits of enrichment opportunities, where students can exercise more choice and which fosters intrinsic motivation and enjoyment in learning opportunities.

While there are other opportunities for student support at Farmington, RISE is the primary means of assisting struggling students. Students noted that they can go to any teacher for help. For example, if a student's current math teacher is busy or has a larger group of students, the student can seek help from a math teacher from a previous year or one with whom they have a strong relationship. Students emphasized the benefits of the one-on-one and small group attention without the need to stay after school, which can be difficult with other responsibilities (jobs, sports, etc.). Students and administrators also noted the timeliness of intervention to keep students on track. Administrators shared that they have studied their data and suggest that, in a given week, 30% of students should be in intervention and the rest should be in enrichment.

All stakeholders recognized that RISE is designed to allow for greater student freedom, but also demands more responsibility on the part of students. RISE replaced a shorter intervention period that was tightly controlled by teachers and administrators. Now, students can control their time and have flexibility in how they reach their goals. For example, one teacher commented that students often work hard at the beginning of the week to complete their work, allowing them time to socialize later in the week. Teachers also noted that RISE helps develop students' time management skills, which in turn helps them to be better prepared for college.

Perhaps most notably, students appeared to have clearly accepted and internalized this need to take responsibility for their learning, and regarded it as an important means of preparing them for college and adult life.

Student 1: It really depends...how you handle yourself. It all leads to responsibility. If you know you have work to do, once you do it, [you don't have to] worry about it later. If you're on top of your game, then there's no problem...That's kind of what they showed us, they gave us a little more freedom. And there's no one that's gonna hold your hand once you leave here, so you know, you might as well get used to making your own decisions and owning up to what you did and didn't do.

Student 2: It's getting you ready for when you walk across the stage. And

it's pretty much...they're getting us prepared for the real world.

Student 1: Most definitely college.

Student 3: I see college. They don't baby us at all.

Given this amount of student autonomy, the possibility of students misusing their time and failing to be responsible appeared to be a significant risk. We inquired about any "safety-nets" in case students were not using RISE well: there were multiple. A first tier used shared-accountability. Students described that if they (collectively) are not using RISE well, it will be suspended for a period of time.

Student 1:They put us back on the traditional [schedule], and people hate the traditional schedule. So...

Student 2: So they get it done during RISE.
Student 1: Exactly, that's what I'm saying.

Student 2: But, if you want it, you've gotta earn it. So we always like having that free hour. It gives us a break during the middle of our day to either have time with friends or be a good student...

Here it is evident that RISE is regarded as a privilege and one that can be lost if not being used responsibly. It is implicit in the comment that this has occurred before and it is highly motivating for students to be more responsible with their time during RISE, suggesting it is one effective means of ensuring responsible use for the majority of students.

A second safety net system can be regarded as a set of tiered supports and consequences to foster individual student responsibility and accountability. The first tier of support is the advisor who monitors and counsels the students about their progress in meeting their goals. If students fail to get on track after 3 weeks, they are referred to a designated "transition coach," an administrator whose full-time role is only to support students to stay on track with RISE. Students describe this role:

Student 1: He has students that, if they are falling too far behind, they give him their goal sheet directly and they report to him at the end of the week. And he's like, "If you're not doing this, then there's a consequence for that." So he's there for students who see RISE as play time.

Student 2: And it could come down to the fact that if you don't go do it, he'll go to your class, get your work, and you'll sit in the ISAP room for an hour pretty much and he'll supervise you doing the work if you get that far behind.

Finally, if that does not work, the school intervenes with parents. One student summarized his experience within this individual accountability system:

"Instead of someone failing, they're going to pull them to the side as soon as possible. I feel like she's gonna pull you in before the three weeks so you can do whatever you need to do. And they call home to parents. Most definitely they call the parents. Because Freshman year, I was kinda slacking my freshman year. I came home and my mama was like, "Oh, you slackin? I better not get a call no more."

Here a Farmington senior describes both the timeliness of the support, but also the extra steps the school will take if RISE time is not being well used and students are not accepting responsibility for their work despite multiple attempts to help. The administrators shared that, to date, this system has worked very well and no student has gone through all of these levels and been unresponsive.

How replicable is RISE? A few key factors are worth considering. First, according to school administrators, it makes the adults in the building rather uncomfortable. "We want to be able to control the circumstances of learning. RISE is very uncomfortable for adults" (Administrator, Farmington). Nonetheless, administrators explained that the decision to adopt RISE was rooted in a collective commitment of the school "to do what is best for kids," even if that entails adults being forced out of their comfort zones. This suggests that there could be resistance from faculty and administrators at other schools to adopting such a model. It also suggests that a professional culture that is open to experimentation and risk-taking, as Farmington teachers frequently noted about their school, and one with an explicit vision of doing what is best for kids despite personal discomfort, may be necessary contextual antecedents to allow a program like RISE to flourish. Finally, it would appear that a school would need to already have an underlying strength in school culture, common formative assessment, and systems for the timely use of data as foundations upon which to build a RISE-like program. Based upon these factors, it seems that RISE could be effectively implemented in a school that is already well along the path of improvement and has many of these underlying systems and cultural elements in place.

Finding 2: Key tools and systems were used to provide instructional support and foster professional community.

As noted earlier, one of the pillars of both school turnaround and school improvement is an emphasis on the instructional program.

PLCs and Data-Driven Instruction

Widespread across all schools we studied was the implementation of Professional Learning Communities (PLCs). While implementation varied, most schools described an emphasis on using data to inform instruction and building a professional community within teams. Some administrators described themselves as "disciples" (Administrator, Fall River) of the DuFour model, and multiple schools have been honored with awards for their effective implementation (Fall River and Farmington). It seems that the schools that most fully adopted PLCs and also most consistently pointed to their benefits (Farmington and Fall River), were also those that had engaged Solution Tree, the consulting firm of Richard DuFour, a leading proponent of the PLC approach. Both schools participated in Solution Tree sponsored training as well as hired an embedded, on-site Solution Tree consultant to support implementation. While more expensive, leaders from both schools strongly affirmed the value of this investment in fostering a robust implementation of PLCs.

Administrators at Fall River were particularly emphatic about PLCs, noting it "affect[ed] practice and discussion at every level of school, every day." The most effective schools used PLCs as an opportunity to engage rigorous collection and digestion of data. As one administrator said, "70% of your PLC time needs to be digging into data… Analyzing student performance data and planning intervention next steps needs to be like 75% of what you're doing at PLCs"

(Administrator, Wayne). The impact of PLCs was also regularly appreciated by teachers as a driver of improvement. According to teachers at Fall River, PLCs could be credited with moving the school off the priority list. They noted:

"[PLCs are] invaluable...even just data days and having time to sit there and process and think and having to put your data up on a screen where you're around your peers. And if the numbers aren't good, you have to figure out how to make them better. So not only does it help the kids, it helps the instruction. Really, that's where you build the team stuff; that's where teachers who struggle learn from the teachers who do well. I mean, I just think that's the crux of everything. "

Here a teacher describes how PLCs have a multi-pronged effect of identifying students for additional support, building professional community and collaboration that fosters professional growth, and creating a data-feedback loop for teachers' collective effort to evaluate and improve instruction.

Though all schools in the sample reported having PLCs, this was viewed as a key driver of improvement in a few schools and not in others. Schools that most frequently cited PLCs as a key improvement strategy also spoke about various means of supporting and monitoring the efficacy of this structure. Leadership teams tended to play a key role in supporting and monitoring PLCs. However, some schools sought to distribute PLC leadership to teachers, where the role of administrators ideally would fade as teachers stepped up and PLCs matured. The evidence suggests that common factors leading to PLC efficacy were a robust initial implementation with more extensive support from third-party experts, the sustained attention and intentionality of school leadership teams to nurture the effectiveness and maturity of PLCs through ongoing monitoring and support, and the full use of PLC design, not only lesson planning but also use of data and shared analysis of instructional practice.

Common Instructional Frameworks, Walkthroughs, and Coaching

Multiple schools in this study also adopted a common instructional framework. The Fundamental Five was most popular, but others developed a model of their own. Farmington originally selected the Fundamental Five due to its alignment with research-based practice, its simplicity, and its anticipated ease of adoption by busy teachers. This was seen as a way to cultivate a sense of consistency across the school through a clear and limited number of common performance expectations for teachers. According to an administrator at Farmington, a common instructional framework "built a cohesion around instruction that everybody has that same point of view. These are the five things that are tight, that are non-negotiables for us. That has changed instruction [in a huge way]. And it has given our students rituals and routines and predictability." Teachers perceived the development of a 'shared language' and administrators noticed improvements in the classroom, such as "more kids engaged...more teachers out instead of behind their desk doing stuff, out in the classroom working with kids...more of the 'We will' and 'I will' statements tied to standards" (Administrator, Victory).

Going hand-in-hand with a common instructional framework was the implementation of a robust teacher observation process, including high-frequency "walkthrough" or "powerwalk" models. Two schools (Victory and Farmington) were on track to complete close to 5,000 walkthrough observations by the end

of the school year. For teachers, this meant "somebody daily popping in a period, and it could be a counselor, it could be a coach, it could be an administrator" and receiving "immediate email feedback every time" (Teacher, Farmington). Walkthrough models were often complemented by a division of faculty roles wherein administrators supported teachers on specific things, such as classroom management, effective basic practice, and deeper learning (Administrator, Fall River). As in the case at Farmington, data from power walks were shared during PLCs. One teacher summarized the process saying:

"When we have our PLC data day or binder review, they show us our data as a PLC and individual data, and then [we can say] 'Oh, look, Mary's great at recognizing and reinforcing, and Dawn is great at being in the power zone'... so you can see the bar graph and where you kind of belong...and where you're not so great at, maybe you could improve that, and you could make it a priority area."

The use of the Fundamental Five and walkthroughs did not go unnoticed by students, who witnessed their teachers being held accountable to quality work and appreciated it. As one student at Farmington said, "Each trimester an Assistant Principal would come in and grade the teacher to see if he's doing his job and make sure that we know what we're learning… so that the school can be a better place for students."

Finding 3: Building a culture of care and support was the first step in most improvement trajectories

At each of the six schools in this study, strengthening school culture was the first step in the improvement trajectory. As we have discussed, some schools concentrated their efforts on culture, while others folded in stronger emphasis on strengthening instruction. Although the quality and depth of the school culture that resulted from these efforts varied somewhat between schools, there were a number of key strategies that appeared to contribute most significantly to stronger school culture.

Freshman Academy

One of the key strategies that appeared to contribute to a cohesive school culture and a sense of belonging for students was an effective Freshman Academy. From the beginning of their high school experiences, a well-run Freshman Academy helps to create a sense of community among students while setting expectations for student conduct, interaction, and academics. One Farmington student noted:

"The Freshman Academy (teachers) really helped us get adjusted and... created a community for the freshmen, so that we didn't feel so scared."

A Wayne teacher credited the Freshman Academy model for improvements in student conduct: "I think the behavior has changed over a period of time because of things done in the Freshman Academy." This process of enculturation at the beginning of students' high school careers helps to establish a foundation for a positive and productive school culture.

A teacher at Sunset who had spent eight years teaching in the Freshmen Academy explained the benefit of this structure from the faculty perspective, emphasizing the opportunity to instill a sense of belonging and to build positive student-teacher relationships, while identifying and addressing student needs as a community of teachers. "One of the things that's best about the Freshman Academy is [the] ownership of this class of kids and this

group of kids – we all come together and work on that group of kids." The teacher also explained how this academy structure facilitated student-level data monitoring and intervention: "we created a watch list and we made certificates for student excellence and things like that." A teacher at Wayne described a similar approach: "The teachers in the Freshman Academy meet bi-monthly to discuss what is going well, what supports they need to put in place for students… The Freshman Academy is a huge support for transitioning students from middle school into high school and helping prepare them for the expectations that we have as a school." This is evidence of strong stakeholder regard for the efficacy of this initiative, which includes collaborative teacher leadership and support to students. Participants also pointed to the Freshman Academy's fundamental role in supporting students through transitions and socializing them to the expectations of high school. Moreover, an administrator at Sunset discussed the importance of keeping students on grade level as freshmen to their overall success in high school, underscoring the importance of effective support and remediation in the Freshman Academy.

Large high schools are often too big for teachers, staff, and students to know every student personally, which can impede efforts to build a sense of community. As one Fall River teacher noted: "You still can't walk down the Fall River halls and know every kid – we're just that big." The Freshman Academy model creates a small learning community within a large high school setting that is more conducive to establishing the cultural foundations on which school improvement rests.

Strong Extracurricular Offerings

A theme that surfaced at all of the schools studied was the importance of building strong relationships between students and caring adults, and nearly all cited extracurricular activities as a key lever to build these connections. Students at Fall River noted ample opportunities for involvement in clubs and sports that enhanced their school pride and sense of community affiliation. A teacher at Wayne noted: "we try to encourage students to find an activity or a sport or a club to be part of so that they do feel more of a belonging." A teacher from Seminole echoed this sentiment, emphasizing how "clubs create a sense of community and keep kids involved."

Even more important than a sense of belonging may be the added layer of support that students can receive from adults in extracurricular settings. As an administrator at Victory stated: "what people don't realize is that you've got that extra hook in a kid – you've got another adult in their life, if not three or four, and they've got to keep their grades up, their attendance has got to be good – it's that extra hook." This Victory administrator emphasizes the power of extracurriculars to foster a sense of involvement, community, and affiliation, as well as the benefits of positive adult relationships that create bonds with students, support resilience, and provide a "hook," a source of motivation and a tie to the school that can translate into academic engagement.

However, several schools noted a challenge unique to the Jefferson County context. The lack of after school transportation options precludes many students from participating in sports and clubs, especially those bused from other parts of the city who are also most at-risk and have the longest commute and the fewest alternate transportation options. One Wayne teacher explained that "there's no way for them to get home, so there's no way for them to take part. I've had some students talk about how they want to be on this club or take part on a team, but because of family situations or (a part-time) job, they don't get

as involved as they would like to be." Teachers at Seminole and Farmington specifically noted similar challenges that arise from the lack of after school transportation options. Some schools have attempted to eliminate this barrier by moving some, though not all, activities into the school day. RISE time at Farmington is an example of how a school can manipulate its master schedule to allow students to experience extracurricular pursuits during the school day and signals the value of these opportunities for students and overall school culture. Some activities such as sports, however, remain exclusively after school.

Relevant and Engaging Curriculum

Many schools in JCPS have begun moving to the Academies of Louisville model, including the majority of schools visited. Across these schools, students emphasized the quality career programs and the authentic learning experiences and opportunities they provide. One Farmington teacher noted that when describing his school, the "first thing I would mention are all of these awesome programs that we have. Heavy equipment, law enforcement, fire science, nursing, and robotics – that's just the coolest thing in the world." A student in the law enforcement academy touted the "amazing programs" and several students interviewed had already earned credentials in their academy field.

These academies offer a relevant and hands-on approach that students find engaging while also helping them to become career ready. Engagement in the applied fields often translated to a broader academic engagement in core courses. Students may be coming for the Heavy Equipment or Medical Tech, but they are staying for ELA, math, history, and science. Finally, when asked about teachers with whom they had the strongest relationships and the highest levels of trust, students often mentioned their academy teachers first. It seems that these programs are often an anchor for student interest as well as caring teacher relationships, both of which foster engagement.

Instructional engagement was also important in the regular classroom. At Seminole, an administrator noted that "cultural responsiveness, evidence of high expectations for all kids, evidence of being able to differentiate instruction, and also passion" were characteristics that the hiring team considered during the school's re-staffing. Several schools have begun to embrace the district initiative around project-based learning, which also aims to increase relevance and engagement, though some teachers noted a lack of expertise in planning project-based lessons which had hindered the widespread adoption of this approach. One administrator noted that "kids with lower proficiencies…(require) different instructional strategies" and cautioned that in addition to creative approaches, "you have to have the meat and potatoes embedded all the way along." This acknowledges the tension that many teachers seem to feel between high engagement activities and instruction focused on fundamental skills that students may lack. For the district's Deeper Learning (PBL) initiative to succeed, teachers must become more familiar with this approach to pedagogy and confident in its ability to help students become proficient in their content area.

Student Voice

Several of the schools studied placed a strong emphasis on student voice and had taken explicit steps to collaborate with students towards improvement goals. One Wayne student claimed that "no voice is unheard" while administrators at Seminole promoted "student voice and student choice." At Victory, an active student council gives input on everything from school policies to t-shirt

designs, which motivates students to become involved. At Farmington, the shift from "Flex" to RISE offered students more freedom and more responsibility, and the evolution of RISE has occurred with student inputs. A student advisory council there meets monthly with the principal and advises the administration on school policies. This strong sense of student voice and respect was affirmed by one Farmington student, who when asked if teachers and administrators invite student opinions, responded "yes, yes, yes… big time!" Students at Farmington also were strikingly aware of the research and rationale behind many of the schools new programs, implying a robust level of communication to students about decision-making processes at the school.

Additional Promising Practices

The four approaches noted above are strategies employed by several, if not all schools in the sample. There were a few emerging practices that only appeared at one or two schools in the sample, but merit mention because of evidence of their promise.

Mindfulness

At Farmington, there has been a significant effort to enhance the social and emotional supports available to students. One administrator explained that "we have a pocket of students that we know need a different kind of attention. They have a lot of non-academic barriers that are keeping them from being successful at school. For us to be able to see our achievement go up and to prepare our kids for life, which is the ultimate goal, we have to work on those non-academic barriers." The mindfulness programming includes specific attention to working with selected students on "executive function and self-regulation" (Administrator, Farmington) and to help students recognize when they need to control their anger and emotions. Farmington even has a mindfulness room where students can request to go to relieve stress by participating in breathing exercises, yoga, and meditation. The teacher who coordinates this effort leads the entire school in a mindfulness exercise each morning after the Pledge of Allegiance. Students interviewed viewed this effort as an implicitly caring approach to behavioral challenges and another opportunity for student leadership; twenty-two student ambassadors have participated in mindfulness training, which makes it both "student centered and student led" (Administrator, Farmington). Students widely affirmed the value this program, noting its benefits for stress relief and refocusing when they might be having a difficult day. Some students cited regularly using the mindfulness room, which they regarded as a non-punitive and relaxing, caring, supportive place to collect themselves and prepare to participate fully in school. They suggested this was not something abused by students as a means of getting out of class but regarded as a genuine means of support.

Class Meetings

At Victory High School, student buy-in took on a different form. Recognizing the challenges he faced, the principal took the bold step of holding a meeting for each class to share out school data and attempt to invest students in the process of school improvement. Focusing on key goals such as attendance, discipline, and test performance, the principal used a healthy competition between classes to help the school achieve its overall goals. Each year, the principal picks a thematic slogan with student input that appears on t-shirts and is intended to build a sense of shared trajectory. This year's theme is "I Believe" to encourage students to believe in themselves and in their school and in what they can achieve individually and

collectively. At the core of this strategy is the acknowledgement by school leaders that school improvement requires students to be part of the process and invested in it; adults may set the direction, but students have to climb aboard.

Ultimately, our study of Exited and Priority Schools in JCPS revealed a number of key practices that not only appear to be drivers of improvement at the schools in the study, but that also fundamentally changed the experience of being in the schools for the students and staff employed therein. Indeed, while some efforts proved to be more objectively successful than others, there is no doubting that all schools have made meaningful attempts to improve conditions for students and there are lessons to be learned from each. Truly, in the appropriate combination, the keys to improvement can be found here.

Discussion

The findings from this research project, drawn from a diversity sample of six priority high schools in JCPS working on school improvement, largely affirm and reinforce key themes from the research literature on school improvement and school turnaround, with some nuances, additions, and extensions to this body of work. We organize this discussion into three main sections: 1) reflections on turnaround and improvement with attendant policy implications, 2) the drivers of improvement and implications for strategy and leadership, and 3) the critical role of social context in achieving broader goals of equity.

On Turnaround and Improvement

This Capstone Project affirmed a number of the key findings from the research literature on school turnaround and school improvement. It confirmed that turnaround is rare and usually not sustained (Huberman et al., 2011; Hamilton et al., 2014; May & Sanders, 2013; Murphy, 2014). If one looks for dramatic gains in both reading and math, we find examples that meet conventional criteria for "turnaround" in only two out of six schools, and three out of six if we look only at state math scores. However, we should also consider that there were actually 11 priority high schools in JCPS, and though we have not analyzed the data from the other 5 high schools, it is our understanding that these have shown less improvement than the 6 in our sample. Based upon this, we might hypothesize that only 2 out of 11 high schools (18%) achieved 'turnaround' levels in both ELA and Math. This is also roughly comparable to the suggested range of successful turnaround cases of 1-15% found in the literature (Loveless, 2010; Stuit, 2012; Herman, 2012).

Sustainability is perhaps the biggest concern. Research on both school improvement and turnaround emphasize sustainability challenges and threats. Improvement is tenuous and prone to regression (Bryk, et al., 2015; Murphy & Torre, 2014; Murphy, 2015). While 5 of 6 schools in the sample showed what appeared to be strong gains in the first year, these appeared to be unsustainable in three of the schools (60%).

The threats to sustainability mentioned in the research literature on improvement and turnaround and affirmed by our findings point to staff turnover as a critical barrier to sustainability.

However, we suggest a more fundamental question: is turnaround even the right goal? Turnaround is evidently possible, but is pursuing it advisable? We believe that school turnaround, despite dominating education policy and reform for roughly the past decade, is simply the wrong goal. Turnaround is alluring because it suggests heroic action and dramatic change, and the sense of urgency and importance feels right in the context of failing schools. Indeed, being *against* turnaround sounds an awful lot like being *for* the status quo. Moreover, some evidence suggests that this sense of urgency and an orientation toward taking risks can be effective in helping to drive positive change and disrupt the encrusted habits and culture in underperforming schools (Murphy & Torre, 2014). Findings from this study would affirm many of these points.

But true turnaround must also be sustainable, and sustainable change seems to more often be about incremental, iterative, collaborative, and collective systems and culture change (Adler, 1999; Ancona & Bresman, 2007; Bryk et al., 2015; Langley et al., 2009; Murphy & Torre, 2014). This implies steady and focused improvement in the areas of instructional capacity and school culture. To be adequately deep and lasting, it seems likely to be too gradual to meet the definition of turnaround, but will last longer because it gets down to the seedbed. In other words, there appears to be an inherent tension between the insistence upon the "dramatic improvements" of school turnaround and the goal of also having that improvement be sustainable. A school administrator at Farmington may have summarized this best, saying:

> I do think that it is a step-by-step process and it requires time. I don't think that school turnaround happens in a year or two years, three years. I do think that it is a long process for it to be sustainable. And...if I could wave my wand, that would be the other thing, that there's a recognition that change that needs to happen that is deep takes a really long time, because it requires culture shift, which we know doesn't happen in a year. It takes a long time for that to happen. I think that we are definitely on the right track. We have put things into place that are sustainable and that will create lasting change that somebody else could come in...and that change would continue.

In other words, almost by definition either turnaround is unsustainable, or it is really not turnaround at all, but the deeper and more gradual work of school improvement. Enough school improvement over time, correctly oriented, will lead to dramatic *and* sustainable change. It seems that this is the more realistic, appropriate, and sustainable goal for struggling schools.

What is more, "turnaround" may create perverse incentives for schools to pursue a homerun strategy or to 'juke the stats' rather than take a measured, incremental approach that places students at the center of each improvement effort. This relates directly to the question of how turnaround or improvement goals are enshrined in policy, which brings us to the question of accountability systems and how improvement or turnaround is defined and measured.

Does the state accountability system for priority schools effectively incentivize appropriate forms of school improvement?

The record appears fairly mixed. Some schools seem to care a lot about their index scores, fairly obsessing over them and suggesting that anything that does not relate directly to them does not matter (Fall River). Other schools do not seem to pay any attention to them at all (Seminole) or give them only minimal attention (Farmington). Since index scores are gameable, and AMO benchmarks are rather arbitrary, the state is essentially labeling schools winners and losers. Yet index scores have only a weak connection to instruction and student academic outcomes. This is problematic and seems to suggest that, in so far as schools are motivated to exit priority status, they are incentivized mostly to game the system, a form of goal displacement and value attenuation (Selznick, 2011), and a problem frequently noted in high stakes accountability policies in education (Diamond, 2007; Fuhrman and Elmore, 2004).

Perhaps most egregious is the requirement to hit AMO targets three years in a row. This appears to be a place where a turnaround goal rather than an improvement orientation is driving policy design, as a school is being asked to make rather large gains for three consecutive years, and is punished for any regressions, plateaus, or more modest improvements in a given year. Schools can be thwarted by variations in cohort composition. Success seems to require luck as much as improvement. This incentivizes short-term thinking and the pursuit of rapid gains, rather than the more realistic and sustainable slow, steady, and systematic drive towards improvement in instructional capacity and school culture that can yield promising student outcomes over time. Ironically, it could also punish schools for making large gains in a given year, if that spike is followed by a plateau or modest regression in the next, which we know from research is to be expected (Murphy and Torres, 2014).

Within this policy milieu and as schools contend with these labels, it is interesting to observe how schools navigate and engage in various forms of sensemaking (Starbuck & Milliken, 1988; Waterman, 1990; Weick, 1995; Ancona, 2011). There is some evidence from the study that originally being named a priority school was a major cognitive shift or crisis of sensemaking for many schools. Meaning and identities were further strained by the turmoil of restaffing. However, this disruption of sensemaking (Weick, 1993) also created the cognitive dissonance and introduced the urgency narrative that allowed for new leaders to engage in new forms of sensemaking and cognitive shifting. Effective leaders brought in a 'map' (Ancona, 2011; Herman, et al., 2008; Robinson & Buntrock, 2011) to steer schools out of this newly realized (i.e. labeled) place of failure. Achieving success on the rather manipulable index scores provided another opportunity for a cognitive shift to a new narrative of success (Foldy, Goldman & Ospina, 2008), providing opportunities for leaders to foster a sense of progress in meaningful work (Ancona, 2011), and motivate staff for the continued work of improvement.

Some schools have used index scores and exiting from priority status to justify a success narrative, even if they did not significantly improve on many key indicators (Victory). Others created a "brand" of dramatically successful turnaround (Fall River), when the reality may be more modest, especially on the most rigorous indicators (i.e. ACT scores).

In the end, it seems that the index scores and the requirements of exiting priority status were a mixed bag. They created a sense of urgency and allowed for a dramatic culture reset in the schools, which in some cases and under the right conditions, eventually translated to significant and sustained

improvements. But the particular incentives of the system promote a short-term orientation, welcome gaming, foster goal-displacement and value attenuation, and can create a false sense of confidence in some cases and a false sense of failure in others.

Drivers of School Improvement

Much of the study affirmed key themes from the research on school improvement. Principal among these is the pivotal role of school leadership. Our findings confirmed the central importance of leadership for school improvement, emphasizing elements of consistency of focus and of personnel, of effective transitions, and of teams, perhaps especially for school improvement in high schools, which are larger institutions and require an effective "middle management" tier of support and leadership to facilitate effective change (Herman, et al., 2008; Robinson et al., 2008; Robinson & Buntrock, 2011; Murphy & Torre, 2014; Murphy & Bleiberg, 2018).

With regard to the importance of leaders facilitating and motivating action around a common mission, vision, and values, the evidence from our research appeared to be rather mixed. While the literature would suggest that this is an important factor in leading school change (Murphy, 2015), some schools appeared to have a relatively weak, implicit, or understated vision and values, but were able to drive improvement through a powerful set of strategic and programmatic commitments, that nonetheless embodied powerful norms and led to effective practices that could motivate action towards improvement. It is not clear from our data whether there were any notable benefits for schools with a more powerful and coherent sense of shared mission and vision. However, shared commitment to core norms and practices did seem to be essential to school improvement. Whether this was rooted in a strong vision, as in Farmington, (Besharov & Khurana, 2012; Bolman & Deal, 1991; Kraatz et al., 2010; Murphy & Torre, 2014; Whetten & Cameron, 2004; Murphy, 2015) or simply a narrative that celebrates progress in meaningful work (Ancona, 2011), as at Fall River, appeared to be less important. Perhaps this suggests that either can be effective means of fostering motivation and faculty and student buy-in, and one is not intrinsically more effective than another. While one is tempted to assume that the more robust vision would be more effective and compelling to stakeholders, creating a deeper sense of meaning that is better able to unify the school community around a common set of values and behaviors, whereas the success narrative could seem a little shallow and self-serving, perhaps there was a reasonably robust implicit vision in these schools that was meaningful and motivating enough that a success narrative and a more operational and strategic focus on serving all students well was no less effective.

Finally, there was ample evidence for the importance of having a limited number of clear goals, consistently and iteratively pursued and refined, with accountability and support to achieve those clear priorities. The absence of this, either because of constant change or a lack of focus (i.e. too many goals and initiatives), was a significant impediment to improvement. This affirms the research on this topic (Robinson et al., 2008; Robinson & Buntrock, 2011; Salmonowicz, 2009; Murphy 2015).

Our findings also largely affirm the importance of schools fostering a culture of care and support, nurturing a sense of belonging and providing a safe and welcoming learning environment (Herman et al., 2008; Picucci et al., 2002; Ancess, 2003; Newmann, 1992; Bryk et al. 2010; Murphy and Torre, 2014; Antrop-Gonzalez, 2006; Cooper et al., 2005; Woloszyk, 1996). One

can clearly see the benefits of this approach at schools that had significantly improved school culture, where strong relationships with teachers engendered powerful commitments on the part of students, and a robust sense of engagement and belonging in the school translated to academic engagement and student motivation. But the findings also demonstrate how the gaps in safety and perhaps belonging at Fall River were creating challenges to the learning and professional environment that could mitigate or threaten the school's improvement trajectory.

The study also affirmed the central importance of schools working to strengthen instructional capacity and the quality of their instructional program. This project confirms that schools that seek to develop and strengthen instruction through sustained attention from instructional leaders and ample professional support and development to improve core instructional strategies with a focus on data and assessment are more likely to see meaningful and sustainable gains in academic achievement (Herman, et al., 2008; Robinson & Buntrock, 2011; Salmonowicz, 2009; Trujillo & Renee, 2012; Murphy & Torre, 2014; Murphy, 2015). While increasing the instructional capacity of a school is a function of a wide-variety of factors, including staffing and materials (Murphy, 2015), our study of high schools in JCPS particularly underscores the benefits of practices related to the support and development of teachers and the cultivation of a strong professional learning community informed by data and assessment (Herman et al., 2008; Cotton, 2003; Leithwood & Strauss, 2010; Murphy, 2015; Bryk et al., 2015; Glazer & Peurarch, 2015). This includes a model for professional learning communities implemented with a certain degree of fidelity, common instructional frameworks, and robust teacher assessment and coaching through frequent walk-throughs and timely feedback.

The findings also underscored, in particular, the importance of staff quality (Bryk et al, 2010; Murphy, 2015), the risks presented by high rates of teacher turnover, and the challenges faced by many low-performing schools serving majority poor and minority populations to find and retain experienced and qualified teachers. The importance of staff mission-fit was also affirmed. Finally, a key finding from the turnaround literature, that districts must support turnaround by providing flexibility and autonomy to school leaders, especially with regard to staffing decisions (Herman et al., 2008) was powerfully confirmed in the repeated emphasis on the value of bypassing the transfer list and the suggestion that this flexibility be extended for a longer period after schools exit priority status.

However, some of our findings pertaining to the restaffing strategy contradicted some research that suggests the restaffing model is not helpful (Murphy & Meyers, 2007). Our findings are in clear opposition to this. Though challenges are recognized, the benefits clearly outweighed the costs in the eyes of most respondents by creating conditions for a culture reset, which enabled school leadership to break through the crust of old habits and norms and do seedbed work of creating sustainable systems and new norms (Murphy & Torre, 2014). Though our findings also affirmed that restaffing brought younger and less experienced teachers, which entailed challenges, the restaffing experience was nonetheless regarded as a clear net positive for the improvement trajectory of the schools.

Our research also affirms the theme from the school improvement literature that school "improvement is multifactor work" (Murphy & Torre, 2014, p. 37-38), and appears to work

best when all parts of the "improvement formula" receive adequate focus and attention from school leadership teams, namely that vision drives improvement in both culture and instruction, which are constant and dual foci of improvement (Ancess, 2000; Bryk et al. 2010; Murphy and Torre, 2014). However, it also appears that if a school is to err in any direction, it may be more valuable to err on the side of improving instructional capacity, as evidenced by Fall River and for which there is also some basis in the research literature (Robinson et al., 2008). Students still perceive their teachers to care about them by the effort and meaningfulness that they put into their teaching (i.e. bringing their "A game") (Ancess, 2003; Newmann, 1992; Murphy and Torres, 2014). Thus, improvements in instruction seem to accomplish a part of the parallel aims of improving instructional quality and communicating care. At the same time, an inadequate focus on safety and belonging may be imperiling academic gains and threatening the sustainability of improvement efforts at Fall River, and are thus unwise to ignore. The research literature would affirm this concern that focusing only on the academic side of the equation is insufficient (Shannon & Bylsma, 2002; Thompson & O'Quinn, 2001), especially for students placed in peril by poverty (Becker & Luthar, 2002; Rumberger, 2011).

In short, all elements of the improvement formula are important, but instructional capacity seems to be a super lever of improvement, without which academic improvements are unlikely to occur. Where instructional investments are weaker or significantly delayed, improvement is marginal. There may be a rationale for creating a strong culture first, especially in circumstances where culture might be a particular challenge or barrier, as a foundation upon which to build. However, our findings suggest that investments in instruction should follow in close succession and be more or less concurrent priorities, again, largely affirming the research literature on this topic, that press toward higher academic standards must be coupled with ample personal support as two anchoring pillars (Bryk et al., 2010), what Ancess (2000, p. 595) refers to as "a combination of nurture and rigor."

Schools Can Do A Lot, But They Can't Do It All

Since the Coleman Report (1966) there has been an awareness that socio-economic status and parental education levels are more predictive of student outcomes than school level inputs. While we have a more complete understanding of the make-up of quality schools and the factors that drive improvement, the research literature still affirms that schools only account for about 20% of students' academic and life outcomes (Murphy, 2015). Thus, while we aspire to a vision of schooling that can defy demographics, close the achievement gap, and become the great equalizer of common school lore, we recognize and appreciate the magnitude of the task that is effecting meaningful change, especially among schools with a high concentration of students living in poverty. Indeed, the narrative of 'failing schools' must include a note about these out-of-school effects, and not simply lament the failure and fragility of these same schools as organizations. To expect to achieve significant academic improvement through implementation of organizational policies and procedures, rather than a deeper grappling with the more fundamental challenges of concentrated poverty, is at best naive and at worst unjust.

There is a well-substantiated base of literature that demonstrates the effect of concentrated poverty in schools: they are more likely to receive fewer material and

financial resources, have less experienced teachers, higher staff turnover, and chronically lower outcomes (Gamoran, 2001; Rothstein, 2004; Ryan, 2010; Darling-Hammond, 1987, 1999; Kozol, 1991; National Research Council, 1999). While one may assume this to be the fault of organizational ineffectiveness or inept leadership, we suggest that these challenges are also the result of the structural dynamics of race and class. It is this concentration of poverty that likely limits the academic achievements of students in schools serving a large percentage of low-income families. Indeed, research suggests that low-income and minority students see significant gains when they attend majority middle class schools (Traub, 1994; Flinspach, Banks, and Khanna, 2003; Braddock, 2009; Kahlenberg, 2001). Some studies even suggest that, in the right proportions (i.e. below 20% FRL did best and below 35% FRL showed gains), and if enrolled for long enough (5-7 years), students in public housing close the large portions of the achievement gap simply by being in more integrated and high quality school environments (Schwartz, 2010).

While our research primarily explored those organizational and leadership factors that did help schools defy the odds and demonstrate strong improvements in the midst of concentrated poverty, it would be improper to suggest that these procedural improvements alone might be enough for the long-haul. In order to adequately and equitably support schools that serve large populations of low-income students, the district should consider addressing student assignment and resource allocation policies that unnecessarily handicap certain schools. Without rectifying policies that undermine equity (some are outlined in the recommendations below), no number of programs, practices, leadership changes, or staffing models will consistently, sustainably, or adequately address the challenge of "failing schools." For it is not necessarily a problem of the schools themselves, but one of the systems and social structures in which they exist.

Recommendations

The JCPS Request for Assistance asked the project team to offer recommendations based on its research findings. In addition to the findings reported in response to our project questions, three distinct recommendations emerged from our reviews of the literature and our qualitative findings.

Recommendation 1: Improve Improvement

The NCLB Waiver process required states to identify and label their lowest performing schools in order to make these schools and their students a priority for SEAs and LEAs. While each state's waiver specified different criteria, most relied upon and index score that represented a composite of various indicators of school performance. While these indices are intended to incorporate and weight a variety of measures of school effectiveness, they are a highly imperfect proxy for school quality.

For JCPS, this strongly suggests the imperative to measure and incentivize improvement more effectively. The focus of the district should be cultivating continuous improvement and growth, not chasing arbitrary benchmarks. While there is a negative connotation to the label "priority school," simply exiting priority status does not mean that a school has sustainably improved, nor does it imply that schools that have not exited priority status have not improved. Real and sustainable improvement takes time. Moreover, it requires the combination of effective and cohesive leadership, a focus on establishing both a strong school culture and instructional capacity, and a commitment to supporting the personnel and resources that will make these instructional and cultural changes possible. To track perception data, the current Comprehensive Survey used by JCPS should be revised to enhance construct validity by using existing scales with multiple measures linked to key variables from the school improvement literature, currently completely lacking from the survey design and reporting. Additionally, rather than working on one-year CSIP goals and agonizing over AMO targets, the district should establish a multi-year plan to make the cultural and instructional improvements necessary in each of its schools and look for steady growth over time on key, valid indicators. JCPS would be wise to include a focus on the twin pillars of fostering a culture of care and support and strengthening instructional capacity using high quality sources of formative data. This should include reliable and valid student and teacher surveys.

For the Kentucky Department of Education, the clear lesson that emerged in this study was that the index score used to identify priority schools was highly gameable (see Research Question 1, Finding 1). During the current school year (2017-18), Kentucky is not reporting accountability scores as it plans to transition to a new formula for identifying low performing schools that complies with ESSA. While the new measure has not yet been employed, it is again likely to be an index score that compiles a variety of factors. Ideally, the new measure will value improvement on more reliable measures such as ACT composite as an indicator of college readiness, rather than a variety of less rigorous alternate assessments. The state should focus on steady growth in less gameable outcome measures, rather than three years in a row of meeting arbitrary benchmarks that rely on easily manipulated indicators and penalize schools for normal variation in student performance between cohorts. Such changes will help to incentivize the right kinds of improvement and minimize efforts to game the accountability system.

Recommendation 2: Focus on Equity

By their nature, district level policies tend to be uniform in application; no one wants to appear to "play favorites," so all schools are treated equally. Yet in a district like Louisville, equal treatment is rarely equitable. The differences in poverty rates between resides areas have been accentuated in the post-PICS years and the presence of selective enrollment schools ensures that not all schools will have the same needs or face the same challenges. It is incumbent on the district to acknowledge differences between schools and to provide the financial, programmatic, and strategic support that higher need schools require. Moreover, the label of "priority school" should not be the sole determining factor for whether schools receive compensatory support. Both quantitative and qualitative data illustrate the imperfections of the index score used to identify and exit or retain priority schools; exiting priority status does not mean that the school's – or students' – needs have decreased.

A focus on equity requires a different lens when creating budgets and policies. Differential funding to help the instructional and programmatic needs of low-SES schools would allow school leaders to compensate for factors like high staff turnover, socio-emotional challenges of students, and high rates of remediation. District-level staff who are experienced working with high-needs schools should be allocated to provide explicit support around proven practices; if data shows that an initiative such as RISE or mindfulness programming is fostering positive outcomes, knowledgeable and hands-on district personnel should help spread it to other high need schools. Additionally, high-need schools should be granted flexibility from select district policies that could negatively impact the school's improvement trajectory.

The most significant policies that the district should address immediately concern staffing; the district should orient human resource policies towards equity by allowing school leaders considerable latitude in hiring and retention decisions. The flexible staffing policies granted to priority schools should be granted to all schools that serve higher concentrations of low-income students. At the very least, it should be granted to exited priority schools for at least five years after showing sustained improvement levels. The findings in this study are clear that the priority school label is a poor proxy for identifying schools with greater need and that improvement, even sustained improvement, is tenuous and fragile in schools with high need student populations. Additionally, the district should incentivize talented teachers and administrators to work in – and continue working in – high poverty schools. The lower performing schools in our study all noted high rates of teacher turnover, as struggling teachers left the profession and good teachers left the school for more desirable positions in other schools. Well-designed incentive programs can equip school leaders with the ability to recruit and retain high performing teachers even in high poverty schools. In subjects where teacher shortages are a major problem, such as the sciences, the district should not only fill vacancies in high need schools first, but actively work to support and train the teachers that are hired while improving pipelines from local teacher preparation programs.

In short, we recommend that JCPS examine its policies, staffing, and resource allocation with a renewed focus on equity. Sustained improvement is not about finding enough transcendent leaders and 'rock star' teachers who can implement the latest, greatest program and magically make all students proficient; it is about building systems from both the ground up and top down that meet the needs of all students. It is not differential funding and differential application of district policies that 'plays favorites' – instead, failing to adopt a differentiated approach to district-level support favors the schools who need the least help at the expense of those with the greatest needs.

Recommendation 3: Build District Capacity

This study revealed that school leaders in JCPS have a great deal of autonomy to select and implement strategies that they believe will positively impact their schools. In the right hands, this flexibility can empower principals to adopt strategies that best meet the needs of their schools. However, it also makes district-level coordination of school improvement efforts challenging, particularly with schools in different areas reporting to different assistant superintendents. The priority schools office does not appear to have the authority to countermand district policies nor sufficient staff to study or replicate promising practices. To reduce the organizational silos now in

place, we recommend placing all priority schools under one assistant superintendent and, working in partnership with the priority schools office, assigning additional district-level expert staff to support these schools. We further recommend providing a dedicated budget to allow for district staff to incentivize and grow quality programs and strategies; highly successful initiatives at both the district level (e.g. PLCs) and school level (e.g. RISE, the Fundamental Five) require initial research and training, as well as ongoing support.

Supporting the extraordinary needs of schools and students is not a new role for the district. Teachers and administrators noted the district's capacity to support certain school needs, such as technology, professional development related to some district initiatives, and ESL support, including outreach to families where English is not spoken at home. Yet the support for the district's highest need schools is minimal. One administrator wondered aloud if the Priority Schools office had a budget at all. Federal law requires additional support for priority schools; our sense of justice through equity morally compels it. JCPS should aggressively build its district-level capacity to systematically support and invest in its highest need schools.

Conclusion

The six schools in this study – all current or former priority schools – showed signs of improvement in varying degrees. All of the adults interviewed cared deeply about the quality of the educational and formative experience their students received. All had implemented programs, policies, and initiatives aimed at school improvement. Yet our qualitative data from these schools confirmed much of what is already known about school turnaround: it is elusive and tenuous at best. This led us to question the concept of "turnaround" itself as it is often defined in the literature, and instead posit that sustainable improvement rarely involves sudden, breathtaking leaps but instead more likely involves incremental, iterative, collaborative, and cultural change.

Nearly two centuries ago, Horace Mann articulated the "absolute right of every human being that comes into the world to an education…and the correlative duty of every government to see that the means of that education are provided for all" (Mann, 1846). JCPS shares in this duty, and the request for assistance that guided this study signals the district's willingness to do what it takes to improve the educational opportunities of all students. The concept of labeling low-performing schools "priority schools" intended to signal the need to make these schools a *priority* – to effect changes that would lead to greater equity and lasting improvement.

Endnotes

[i] In an attempt to include a set of counterfactual cases to aid in analysis and better isolate and understand possible drivers of improvement, the team requested that a set of three current priority high schools that have not yet exited priority status be included in the list of case study schools. The intent was to include schools that had received similar "treatments" but achieved different levels of performance in order to better isolate factors that might help to explain these differences apart from the "turnaround treatment" common to all priority high schools.

These current priority schools were selected in consultation with the Director of the Office of Priority Schools within JCPS. While the intent of the project team was to include counterfactual examples, the Director of Priority Schools was concerned with the political implications of including case study schools as examples of persistent failure (namely, how this would be perceived by those schools) and of further burdening schools in the greatest need of improvement with participation in the study. Furthermore, the Director indicated that some schools had not yet achieved a minimal level of stability in terms of leadership and teacher turnover, and therefore did not represent helpful examples to include in the inquiry.

This is already a point worth underscoring. State reports and feedback from JCPS district personnel indicated that staff attrition was a major problem in many priority schools, inhibiting their capacity to improve. That teacher turnover and unstable leadership are impediments to improvement is well documented in the research literature (Murphy 2013). Due to these limitations and concerns, a certain degree of screening occurred in our selection, such that – in all participating schools - some of the largest impediments to improvement had already been stabilized or removed.

[1ii] We found the Comprehensive Survey to be seriously lacking in fundamental aspects of survey design and analysis. First, there is no indication that the district has used pre-existing scales that have already been validated to create its Comprehensive Survey, nor is there any indication that measures in the Comprehensive Survey have been organized into scales and tested for the degree to which they reliably and validly measure particular constructs. Rather than seeking to capture particular constructs, it appears that the Comprehensive Survey reports a mélange of individual measures into an aggregate score. This is a serious limitation. Not only is it not clear if the measures are accurately measuring the constructs of interest, posing serious threats to accurate interpretation, but perhaps most notably, because key constructs are not appropriately weighted in the aggregate score. For example, there are as many questions in the survey about the quality of school leadership (1) as there are about whether students like the lunches that are served (1), and half a dozen questions about safety and socio-emotional variables (important, but perhaps not 6x more important than leadership efficacy).

To address this, we selected measures that fit within the broad drivers of improvement: 1) the efficacy of school leaders and the degree to which leaders effectively build and motivate effective action around shared mission, vision, values, and goals, 2) the degree to which an effective school culture is developed and maintained, and 3) the way in which the instructional program is developed and strengthened (Bryk et al., 2010; Murphy & Torre, 2014; Murphy, 2015). Measures that cohered around key factors within each of these categories were organized into scales. For example, for culture, we used sub-constructs derived from the literature of care, support, safety, and belonging (Murphy & Torre, 2014). The percentage of students that agreed on each measure were then averaged to produce an index score for each sub-construct. These sub-construct index scores were then combined and averaged to produce aggregate index scores for 1) Leadership, 2) Culture, and 3) Instructional Capacity, each of which was made up of multiple sub-constructs (except for leadership, which had only one measure and one construct, a serious gap in the survey design).

Ideally, the survey should use existing scales drawn from the research literature and already tested for validity and reliability across multiple contexts. Minimally, following something akin to our method, of building scales for particular constructs, should be pursued. These scales should then be tested for validity and reliability to refine the scales and ensure valid and reliable measures and scales. Lacking the full dataset, we were not able to complete this additional and important step. Taking these steps would be a significant improvement in the survey design and quality of data presented back to schools and to the district. We would also strongly recommend creating an "Improvement Index" along the lines of what we have done, for a simple and powerful tool to be used by schools to help drive improvement around the key factors of interest. The current system lacks this type of conceptual clarity and analytic simplicity and focus, leaving schools to fend through a mess of questionable data for themselves.

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Appendix A
JCPS RFP

Study of EXITED Priority Schools in JCPS:
Key Factors for Success in Turnaround Schools

Over the last several years, student achievement in reading and math across Jefferson County Public Schools (JCPS) has been steadily increasing, but some persistently low-achieving schools (n = 18, including 2 elementary, 8 middle, and 8 high) still lag far behind in accountability measures. In the state of Kentucky we call persistently low-achieving schools "priority schools."

When compared to non-priority schools, the percentage of students that score novice (the lowest performance category) on state reading tests is about 30% higher at the elementary school level, 18% higher at the middle school level, and 29% higher at the high school level. When compared to non-priority schools, the percentage of students that score novice on state mathematics tests is about 33% higher at the elementary school level, 16% higher at the middle school level, and 22% higher at the high school level. We need to learn from exited priority schools to identify the key factors so that we can positively impact about 16,000 high-poverty students associated with priority schools (free- and reduced lunch is 95% at elementary school level, 78% at the middle school level, and 78% at the high school level). We need to replicate what we learn from successful turnaround schools like Wayne, Fall River, and Victory High. We could also potentially learn lessons from middle schools on their way to exit priority status—Knight MS, Moore MS, and Westport MS.

JCPS would like to know what key strategies are in place at successful priority schools, what the effects of these are, and what barriers specific to our district exist to implementing these strategies and making it effective across ALL priority schools.

JCPS is requesting that Vanderbilt doctoral students investigate the current status of, potential for, and benefits of turnaround strategies in JCPS exited priority schools so that we may adapt the findings and recommendations to close the achievement gap between priority and non-priority schools. We propose a mixed method research design, beginning with a survey and data analysis at the district level to determine what these strategies are and how to replicate them in other schools, followed by in-depth interviews and classroom observations.

Preliminary research questions for this study include: (a) What key strategies take place in JCPS turnaround/priority schools that have exited priority status? (b) What implementation patterns can be discerned and described? (c) What resources and support structures provide the platform for school-based practices that enable success in priority schools? (d) What gaps and "lessons learned" are emerging that may inform school- and district-based practices moving forward for priority schools?

Appendix B
Educator Interview Protocol

Research Presentation/Informed consent

About the administrator/teachers/staff

1. Introductions
2. How long have you been working at this school?

General and Improvement Trajectory

3. Can you tell me about this school? What are some of the strengths and weaknesses? Recent signs of progress? Why?
4. Overall, do you feel like the school is improving, staying about the same, or getting worse? Why do you think this? What are the key reasons for this?

Shared mission, vision, and goals

5. How would you describe the mission and vision of this school in your own words? To what extent is this shared by the faculty and staff? Examples?
6. What are the school's top priorities? What are current major goals? How are these being pursued?

Culture of Care and Support

7. How would you describe the culture at this school, feeling of the school environment? Has it changed recently? Explain.
8. How would you describe the relationship between students and teachers? (probe about care, support, trust) How does the school seek to promote strong relationships?
9. How does your school support struggling students to succeed? Have there been any new efforts to augment this?
10. Do you think the students feel safe at this school? Teachers? Have efforts been made to improve this? Please describe.
11. How does the school seek to promote a sense of belonging for all students?
12. How does the school seek to build a sense of community? Community among teachers?

Instructional capacity

13. What has your school done to try to strengthen teaching and learning?
14. How would you describe teacher quality and any changes to teacher quality over-time?
    a. Has the school made any efforts to strengthen staff composition? What has been the level of school-level flexibility/autonomy to make staffing decisions/changes?
    b. Other efforts to augment teacher performance or motivation?

15. Are there school-wide policies, practices, or structures with regard to how data is collected and used? Can you describe these? How effective are they? How fully adopted?
    a. Is there a school-wide approach to formative assessment? Has this been an emphasis for building teacher capacity/skills? If so, how? Give examples.
    b. To what extent has the school focused on having teachers differentiate lessons using flexible groupings or differentiated assignments? If so, how has this been pursued? Would you say that whole-group or small-group instruction is more prevalent?
    c. Does your school have any formal systems for progress monitoring? If so, can you describe how these work?
16. What steps does your school take to ensure that struggling students receive additional instructional support or differentiation?
17. Has your school sought to use extra-time outside of typical school hours to improve the learning outcomes of struggling students? If so, can you describe these. How effective have they been?
18. How do you feel that the level of academic rigor at this school compares to other schools? Explain.
19. How does the school seek to create high expectations for all students? Has this changed in recent years?
20. How has the school sought to promote and deepen student academic engagement?

Perceptions Systemic Support and Capacity

21. What level of support has the school received in efforts to strengthen performance? Where has this support primarily come from?
22. Do you feel that the school and its leaders are well-equipped to lead/sustain the improvement efforts that are being asked of it as a (former/current) priority school?
23. Any other thoughts that you would like to share about the school as lessons for other priority schools in the district?

Appendix C
Student Interview/Focus Group Protocol

Research Presentation/Informed consent

About the student

1. Have you been at this school all four years? How have you liked it here?

Shared mission, vision, and goals

2. What is the mission of this school? How is it communicated?
    a. Do students and teachers live out the mission? In what ways?
    b. Are there specific beliefs and values that guide the vision of this school? Can you give specific examples?
3. Do you feel a part of the school community?
    a. Do teachers and administrators invite student opinions about what happens in this school? If so, how?

Culture of care and support

4. Do you feel like your teachers care about your success in school? Outside of school?
5. Do you trust you teachers?
6. Do you have any teachers at this school that you feel like you can talk to for advice in a difficult situation?
7. Do you get extra help with schoolwork when you need it? How?
8. Do you ever feel unsafe at this school? If so, when?

Instructional capacity

9. Thinking about your current classes, how many of them are interesting or engaging most of the time?
10. How many of your academic classes (like Math, Science, English) are challenging and require you to work hard?
    a. How do your teachers check what you have learned to make sure you understand?
    b. Would you say that your teachers have high expectations for your work in the classroom? Why or why not?
    c. On average, how much time do you spend on homework a night?

Closing and final thoughts

11. Are you proud to be a student at this school? Why or why not?
12. Overall, do you feel like the school is improving, staying about the same, or getting worse? Why do you think this?
13. Any other thoughts that you would like to share about the school?

Focus Group Activities

- Create a motto for your school that you believe accurately captures its current mission and culture and the beliefs of teachers, administrators, and students.
    - 10 minutes: Activity.
    - 5 minutes: Share.
- Create a report card for each of your current classes that assesses 1) the difficulty of the material; 2) how effectively the class engages and interests students; and 3) how much that teacher cares about students in the class and works to make sure all are successful.
    - 10 minutes: Activity.
    - 5 minutes: Share.
- We are interested in the quality and effectiveness of this school, and how it may be changing in recent years. Create a timeline of changes in the school since you have been here that you think are relevant to this question. Assign each a + if a positive change and a – if a negative change.
    - 10 minutes: Activity.
    - 5 minutes: Share.

Appendix D

Interview Coding Scheme – Concept Matrix Level I

Category	Norm / major sub-theme
General Trends in Performance	Antecedents and Contextual Factors
	Trajectory
	Evidence of improvement
Leadership	Shared vision, mission, etc.
	Clear and effective improvement goals/strategies
	Leadership capacity and efficacy (as change agent)
	Consistency and cohesion of leadership team
School Culture	Care
	Support
	Safety
	Belonging
	Professional community
	Family and community support/ engagement
Instructional capacity	Staffing (quality, autonomy, changes)
	Teacher development or motivation
	Use of data and assessment
	Instructional/remedial support
	Use of time
	Rigor
	Academic press (high expectations)
	Academic engagement
	Curriculum quality/alignment
	Quality Resources/Technology
Systemic support	External support
	Leadership accountability

Appendix E

Interview Coding Scheme – Concept Matrix Level II

RQ 1: To what extent do 3 JCPS HS that have exited from priority status reflect examples of school turnaround?
1. Turnaround was rare, generally unsustainable, and not necessarily linked to exiting-priority status
1.a Index scores are gameable and do not closely correspond with improved academic performance.
1.b A few schools showed gains on state tests, but little or no improvement on ACT composite scores.
1.c Grad rates have surged in all six schools.
1.d Initial promising gains in most schools were not sustained
RQ 2 Why did some schools in the sample achieve sustained turnaround/improvement while others did not?
2. Contextual antecedents appear to significantly explain school performance
3. Effective, consistent, and cohesive school leadership teams focused on instruction appear to be the primary driver and sine qua non of sustained improvement.
4. The quality and stability of teachers and other support staff is a major factor enabling or threatening improvement.
5. The most successful schools fostered a deep culture shift, enabled by restaffing, and defined by common elements.
5.1 restaffing created the conditions that allowed for a culture reset, to build a new shared vision, and to implement new programs and practices
5.2 a major emphasis on professional community, mutual accountability, and support of teachers
5.3 a robust orientation towards continuous improvement driven by data and evidence informed practice
5.4 extensive use of data to inform instruction and extensive recovery and support opportunities for students.
5.5 a shared instructional framework and robust instructional support/coaching systems
6. School culture alone is necessary but not sufficient. Schools that showed the strongest performance either improved both culture and instructional capacity equally or erred on the side of emphasizing instructional capacity.
6.1 Only one school hit on all three drivers of school improvement robustly (Farmington) and some signs suggest the strongest and most sustainable improvements
6.2 One school erred on the side of instructional capacity and showed large gains.
6.3 Schools that erred on the side of improved school culture did not sustain or achieve comparable gains over a 6 year period. While consolidating culture may be a necessary pre-requisite to eventually strengthening instructional capacity, it appears that the delay was longer than necessary in a number of schools.
7. External supports are pulled back quickly upon exiting priority status, imperiling gains

RQ2 What factors, programs, or strategies appear to be promising practices that may be contributing to improvement - to the extent that improvements were made - in schools in the sample? To what extent are these likely to be replicable or transferable to other school contexts?
8. Stand-out, seemingly highly effective programs or practices could be found among most schools. Nine of these are worth particular recognition and possible replication.
8.1 Effective intervention approaches and ample means of support - RISE (Farmington)
8.2 Recovery Math courses (Victory)
8.3 PLCs and Solution Tree partnership (Fall River, Farmington)
8.4 Fundamental Five with power walks (Farmington, Victory); or similar (Fall River, Sunset, Seminole, Wayne)
8.5 Mindfulness programming (Farmington)
8.6 Building belonging and engagement (all) a) relevant and engaging curriculum, b.) strong extra-curriculars to deepen adult-student relationships, c) Freshman academy to build community and support transitions
8.7 Effective external support personnel (Fall River, Farmington) (ERLs, good consultants/university partners, strong Assoc. Sups)
8.8 Positive behavior in schools (PBIS) - HERO (all)
8.9 Emphasis on student voice and collaboration in improvement process (Victory, Farmington)
8.10 Teacher Mentoring/Coaching (Wayne)
RQ4 What are possible lessons or recommendations for the district and the state?
1. Measure and incentivize improvement more effectively
2. Address over-concentration of poverty in a few schools
3. Focus on equity not equal treatment of schools
3.1. Sustained financial, programmatic, and strategic support from the district and state to highest poverty schools and priority schools (differential funding formula, more district staff support, and flexibility from some district policies)
3.2 Improve staffing pipelines and retention strategies for high poverty schools. Keep the flexible HR policy - not hiring off of the transfer list - for longer, ideally permanently. Create incentivizes for talent and retention to high poverty schools for teachers and leaders through differential pay and preferred hiring for leadership positions.
4. Build district capacity to systematically support and invest in highest needs schools: authority, staff, and financial capacity
5. Deepen a commitment to inter-organizational learning between schools whereby schools are incentivized and supported to replicate promising practices from among high poverty schools (i.e. begin by replicating programs noted above).
6. Strengthen parent and community engagement
7. Increase rigor and requirements for independent academic work (i.e. homework), resonsibility, and demonstrated executive function skills

Appendix F
Walkthrough Template

Vanderbilt Capstone Research @ JCPS: Walkthrough Summary

School/District: _____ ☐ General Education ☐ Bilingual
Subject/Grade: _____ ☐ Inclusion ☐ ESL
Teacher/Room Number: _____ ☐ Self-Contained ☐ _____
Segment of Class Observed: ☐ Beginning ☐ Middle ☐ End Date:
_____

Instructional Design

What is the objective of this lesson? How do you know?

Does instruction match the stated objective? Yes No

Do students understand the learning objective? Yes No

Does the objective align with grade level CCSS? Yes No N/A WIDA (if ESL class)

What are students doing and saying?

What is the teacher doing and saying?

How will the teacher know if students master the objective?

Who is doing the thinking in the classroom?

☐ Teacher Primarily ☐ Students Primarily ☐ Teacher and Students ☐ Other _____

At what level are students asked to think, answer questions, and work?
☐ Higher Order (Evaluate/Create) ☐ Intermediate (Apply/Analyze) ☐ Basic (Remember/Understand)

Instructional Practice

What strategy (or strategies) is the teacher using to meet the needs of all students?

Is the instruction differentiated? Yes No

If Yes, how is it differentiated? _____

Does the teacher use multiple response strategies to check students' understanding? Yes No

Does the rigor and complexity of tasks and texts match grade level standards? Yes No

Engagement

What percent of students are engaged in learning?
☐ Below 25% ☐ 25% - 50% ☐ 50% - 75% ☐ 75% - 100%

How are students primarily engaged in the class?
☐ Authentically engaged in learning and displaying intellectual curiosity
☐ Passively engaged (compliant and following directions)
☐ Not engaged (off task or distracted)

Does the teacher set high expectations for students by emphasizing effort and thinking? Yes No

Environment

Is the classroom organized to support student learning?	Yes	No	N/A
Are routines and procedures evident?	Yes	No	N/A
Does the use of technology or resources support student learning?	Yes	No	N/A

How does the teacher provide feedback to students?

Additional Notes

Appendix G
Walkthrough Summary Template

Capstone Walkthrough Summary Report

School/District: _____ Date:_____
Number of Classrooms Observed:_____ Classroom Types Observed:
Walkthrough Participants:

☐ General Education ☐ Bilingual
☐ Inclusion ☐ ESL
☐ Self-Contained ☐ Other

Summary of Trends

During the RAC team walkthrough, the following trends were observed:

Recommendations

Based on walkthrough observations and discussions with school leaders, the following recommendations are offered:

Walkthrough Data Summary

For each area of focus below, please record the number of classrooms that corresponds to the descriptor.

Instructional Design

Instruction matched the stated objective:	Yes ☐	No ☐	
Students understood the learning objective:	Yes ☐	No ☐	
The objective aligned with grade level CCSS:	Yes ☐	No ☐	N/A ☐

Thinking was done by: ☐ Teacher Primarily ☐ Students Primarily ☐ Teacher and Students
Other

Students were asked to think, answer questions, and work primarily at the following levels:
☐ Higher Order (Evaluate/Create) ☐ Intermediate (Apply/Analyze) ☐ Basic (Remember/Understand)

Instructional Practice

Instruction was differentiated:	Yes ☐	No ☐
The teacher used multiple response strategies to check students' understanding:	Yes ☐	No ☐
The rigor and complexity of tasks and texts matched grade level standards:	Yes ☐	No ☐

Engagement

The percent of students in each class who were engaged in learning:
☐ Below 25% ☐ 25% - 50% ☐ 50% - 75% ☐ 75% - 100%

The level of engagement in each class observed:
☐ Authentically engaged in learning and displaying intellectual curiosity
☐ Passively engaged (compliant and following directions)
☐ Not engaged (off task or distracted)

The teacher set high expectations for students by emphasizing effort and thinking: Yes ☐ No ☐

Environment

The classroom was organized to support student learning:	Yes ☐	No ☐	N/A ☐
Routines and procedures were evident:	Yes ☐	No ☐	N/A ☐
The use of technology or resources supported student learning:	Yes ☐	No ☐	N/A ☐

Appendix H
Quantitative Data

Demographics

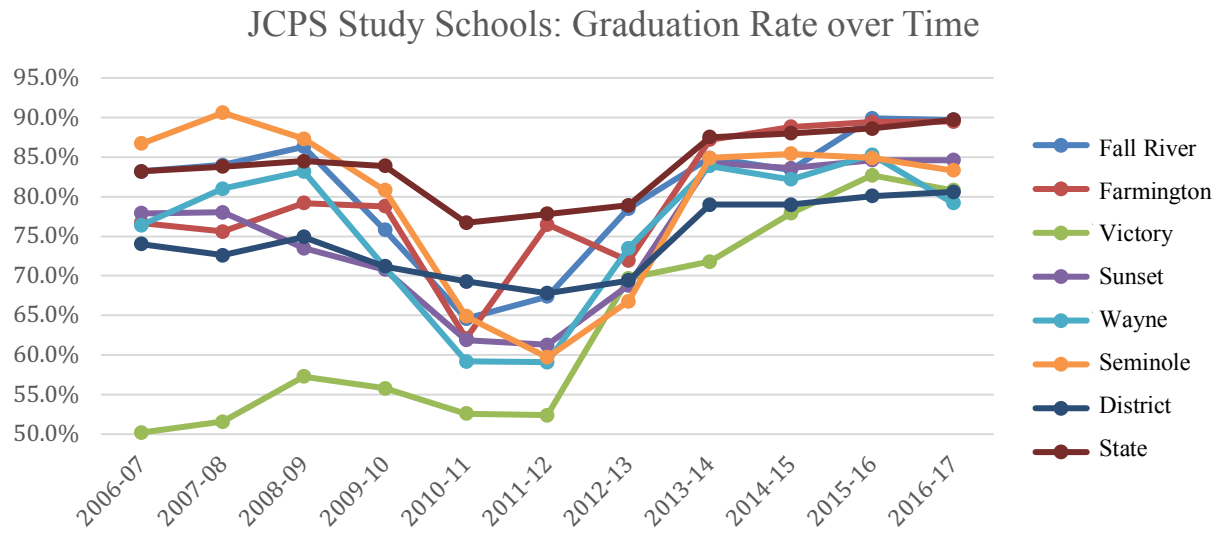
	# of Students				
	2013-14	**2014-15**	**2015-16**	**2016-17**	**4-yr Trend**
Fall River	1389	1489	1504	1546	157
Farmington	1049	1113	1128	1150	101
Victory	1019	1403	1459	1186	167
Sunset	1068	1127	1151	1227	159
Wayne	709	744	822	835	126
Seminole	1429	1417	1389	1322	-107

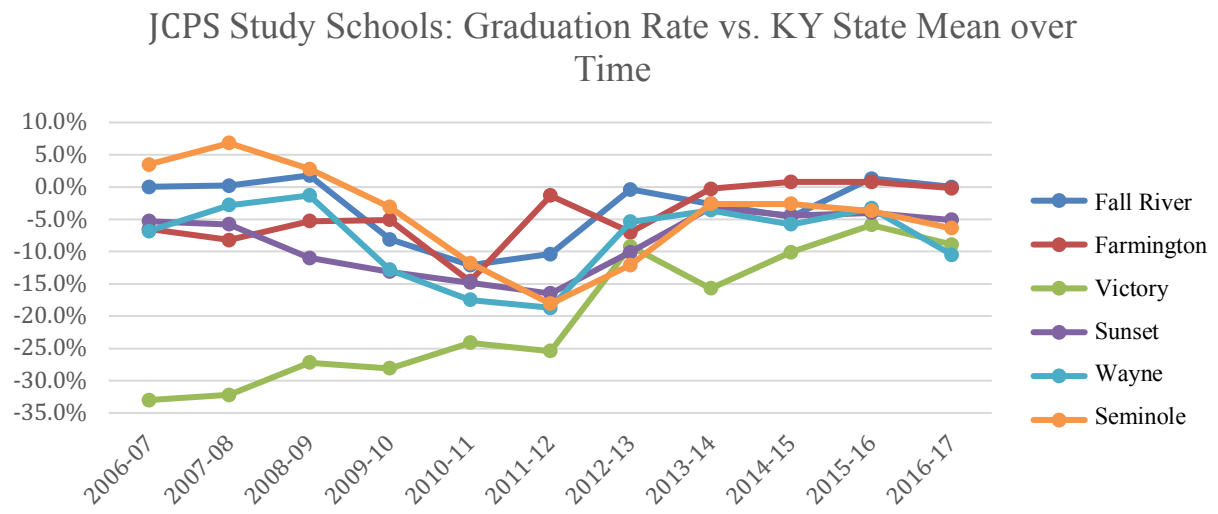
	% of Students Qualifying for Free/Reduced Lunch				
	2013-14	**2014-15**	**2015-16**	**2016-17**	**4-yr Trend**
Fall River	63.9%	68.1%	64.8%	70.4%	6.5%
Farmington	77.3%	74.3%	77.7%	75.1%	-2.2%
Victory	82.2%	80.8%	85.0%	82.9%	0.7%
Sunset	75.3%	74.4%	73.3%	75.0%	-0.3%
Wayne	77.1%	78.2%	58.5%	73.2%	-3.9%
Seminole	74.8%	77.7%	77.6%	80.5%	5.7%

	% of Students Identifying as Nonwhite				
	2013-14	**2014-15**	**2015-16**	**2016-17**	**4-yr Trend**
Fall River	51.8%	54.1%	53.4%	57.6%	5.8%
Farmington	38.0%	39.6%	38.7%	40.0%	2.0%
Victory	40.3%	45.2%	47.0%	45.3%	5.0%
Sunset	44.0%	50.1%	50.7%	54.6%	10.6%
Wayne	62.5%	60.3%	65.0%	67.3%	4.8%
Seminole	58.4%	62.0%	60.5%	63.9%	5.5%

Graduation Rate

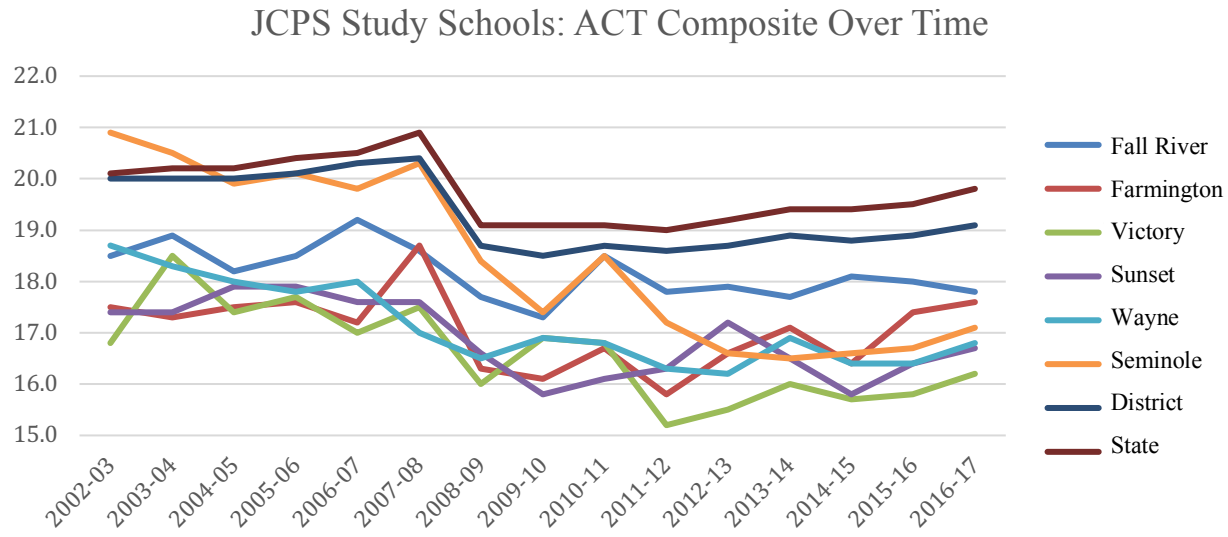
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
Fall River	83.2%	84.0%	86.3%	75.8%	64.6%	67.4%	78.5%	84.9%	83.4%	89.9%	89.7%
Farmington	76.7%	75.6%	79.2%	78.8%	62.1%	76.5%	71.9%	87.2%	88.8%	89.4%	89.5%
Victory	50.2%	51.6%	57.3%	55.8%	52.6%	52.4%	69.7%	71.8%	77.9%	82.7%	80.8%
Sunset	77.9%	78.0%	73.5%	70.8%	61.9%	61.3%	68.8%	84.3%	83.6%	84.6%	84.6%
Wayne	76.4%	81.0%	83.2%	71.1%	59.2%	59.1%	73.5%	83.9%	82.2%	85.3%	79.2%
Seminole	86.7%	90.6%	87.3%	80.8%	64.9%	59.7%	66.8%	84.9%	85.4%	84.9%	83.3%
District	74.0%	72.6%	74.9%	71.2%	69.3%	67.8%	69.4%	79.0%	79.0%	80.1%	80.6%
State	83.2%	83.8%	84.5%	83.9%	76.7%	77.8%	78.9%	87.5%	88.0%	88.6%	89.7%

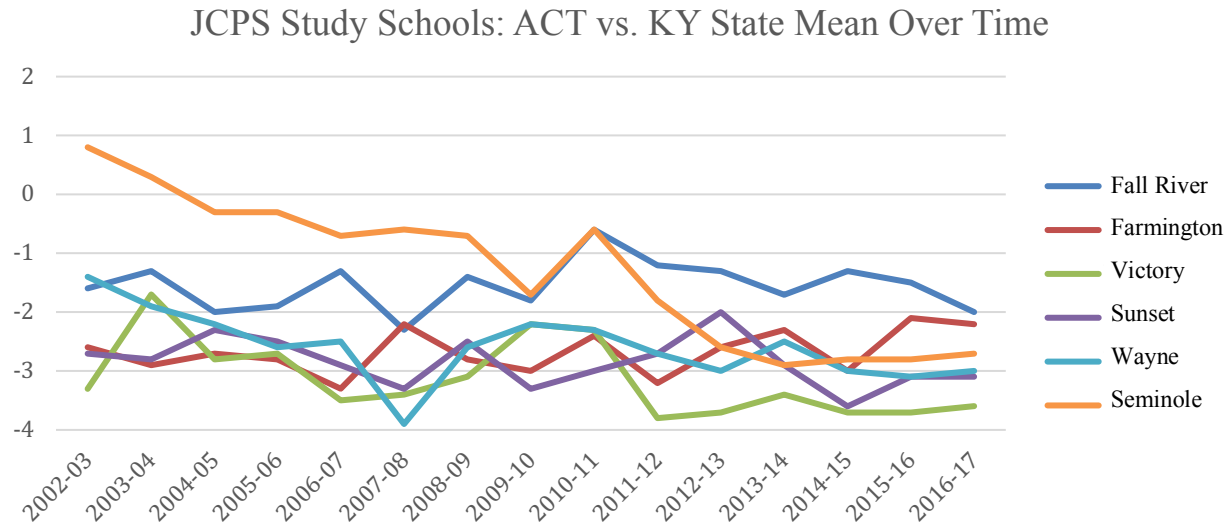




ACT Composite (School Mean)

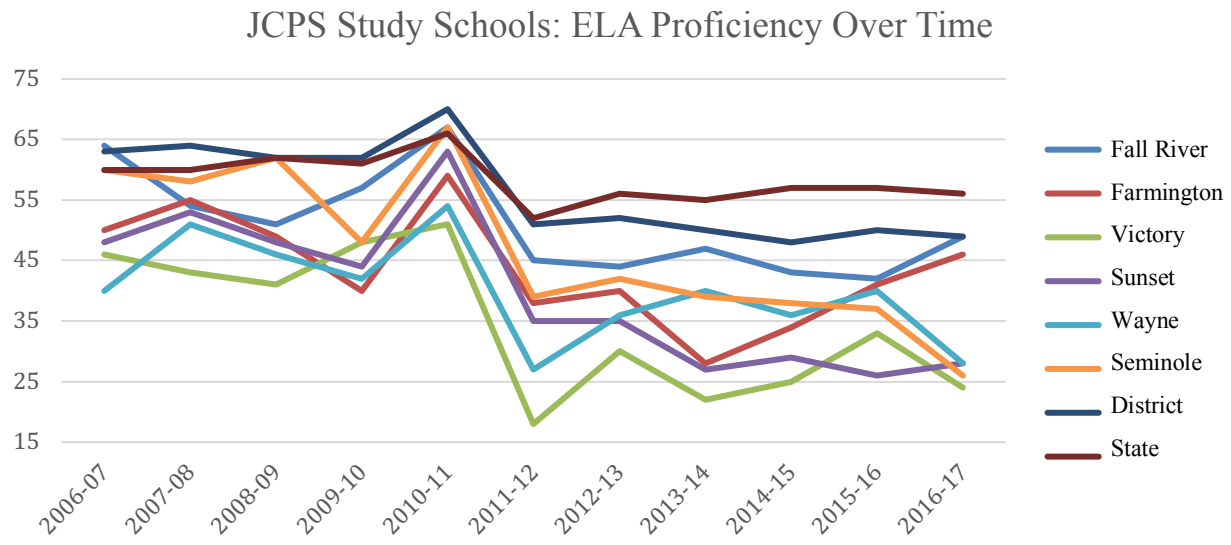
	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
Fall River	18.5	18.9	18.2	18.5	19.2	18.6	17.7	17.3	18.5	17.8	17.9	17.7	18.1	18.0	17.8
Farmington	17.5	17.3	17.5	17.6	17.2	18.7	16.3	16.1	16.7	15.8	16.6	17.1	16.4	17.4	17.6
Victory	16.8	18.5	17.4	17.7	17.0	17.5	16.0	16.9	16.8	15.2	15.5	16.0	15.7	15.8	16.2
Sunset	17.4	17.4	17.9	17.9	17.6	17.6	16.6	15.8	16.1	16.3	17.2	16.5	15.8	16.4	16.7
Wayne	18.7	18.3	18.0	17.8	18.0	17.0	16.5	16.9	16.8	16.3	16.2	16.9	16.4	16.4	16.8
Seminole	20.9	20.5	19.9	20.1	19.8	20.3	18.4	17.4	18.5	17.2	16.6	16.5	16.6	16.7	17.1
District	20.0	20.0	20.0	20.1	20.3	20.4	18.7	18.5	18.7	18.6	18.7	18.9	18.8	18.9	19.1
State	20.1	20.2	20.2	20.4	20.5	20.9	19.1	19.1	19.1	19.0	19.2	19.4	19.4	19.5	19.8

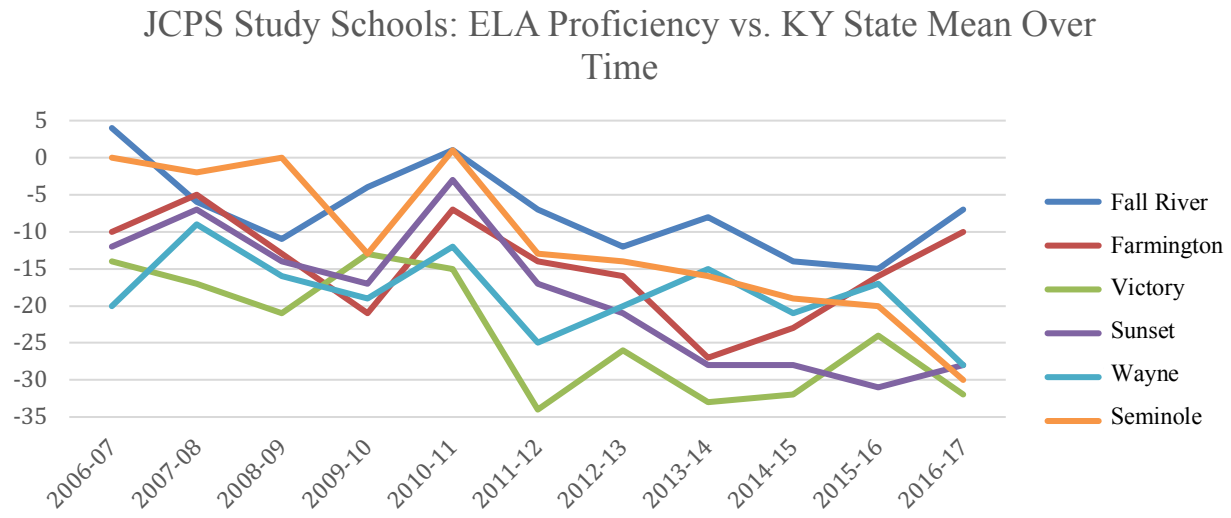




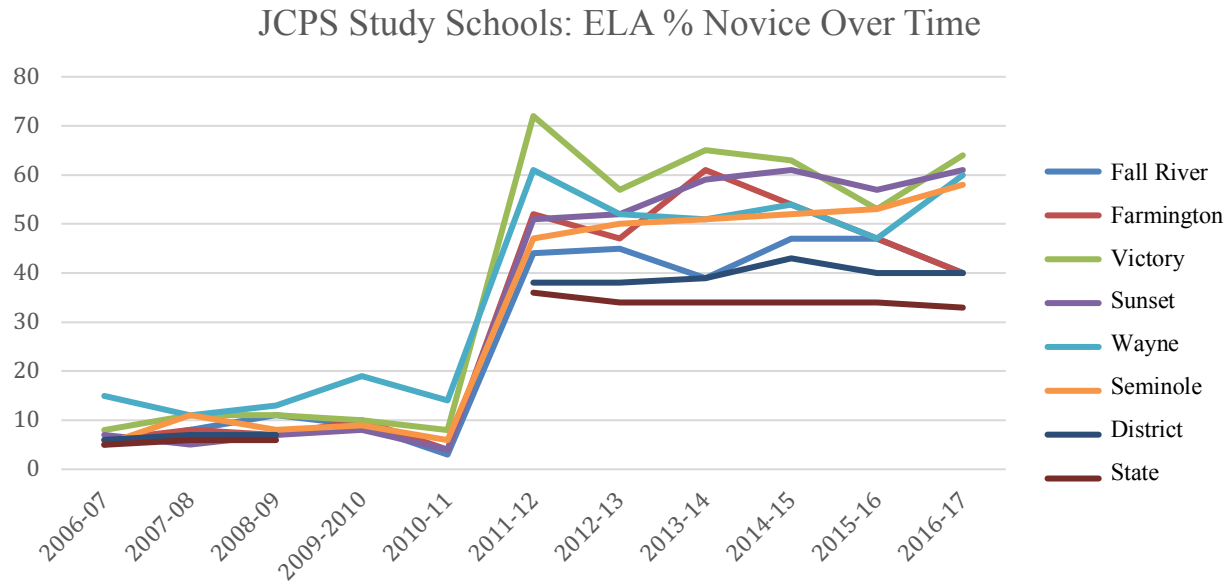
ELA % Proficient/Distinguished

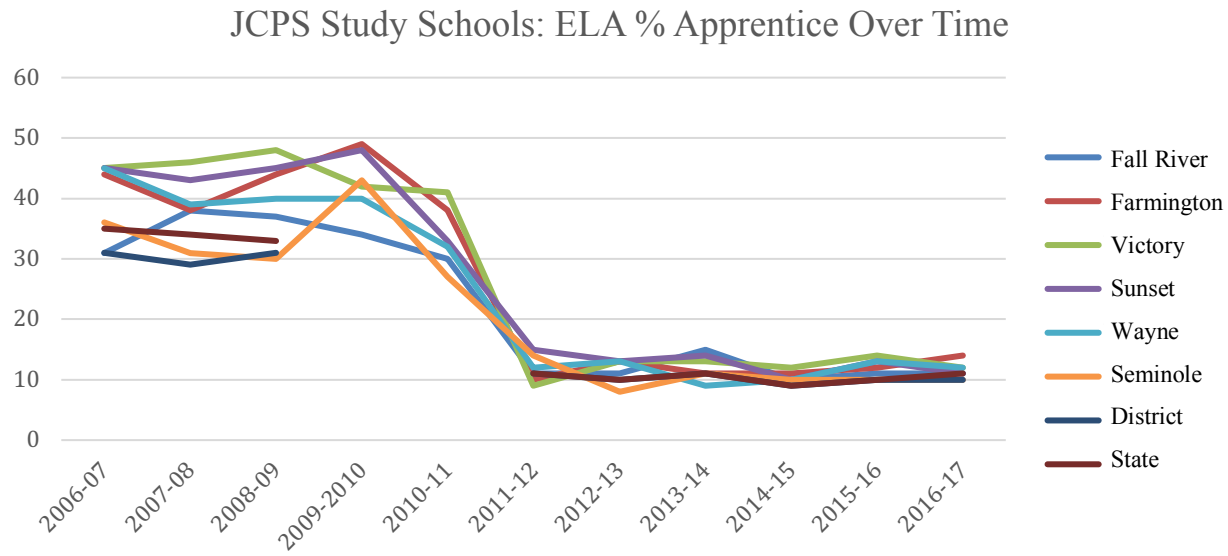
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
Fall River	64	54	51	57	67	45	44	47	43	42	49
Farmington	50	55	49	40	59	38	40	28	34	41	46
Victory	46	43	41	48	51	18	30	22	25	33	24
Sunset	48	53	48	44	63	35	35	27	29	26	28
Wayne	40	51	46	42	54	27	36	40	36	40	28
Seminole	60	58	62	48	67	39	42	39	38	37	26
District	63	64	62	62	70	51	52	50	48	50	49
State	60	60	62	61	66	52	56	55	57	57	56





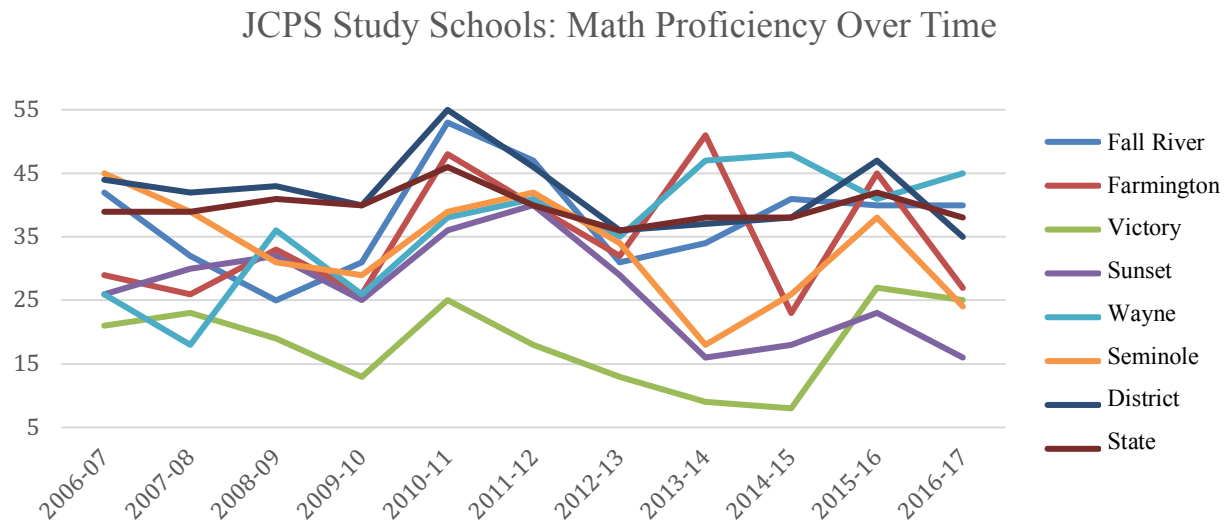
ELA Performance and Novice Reduction

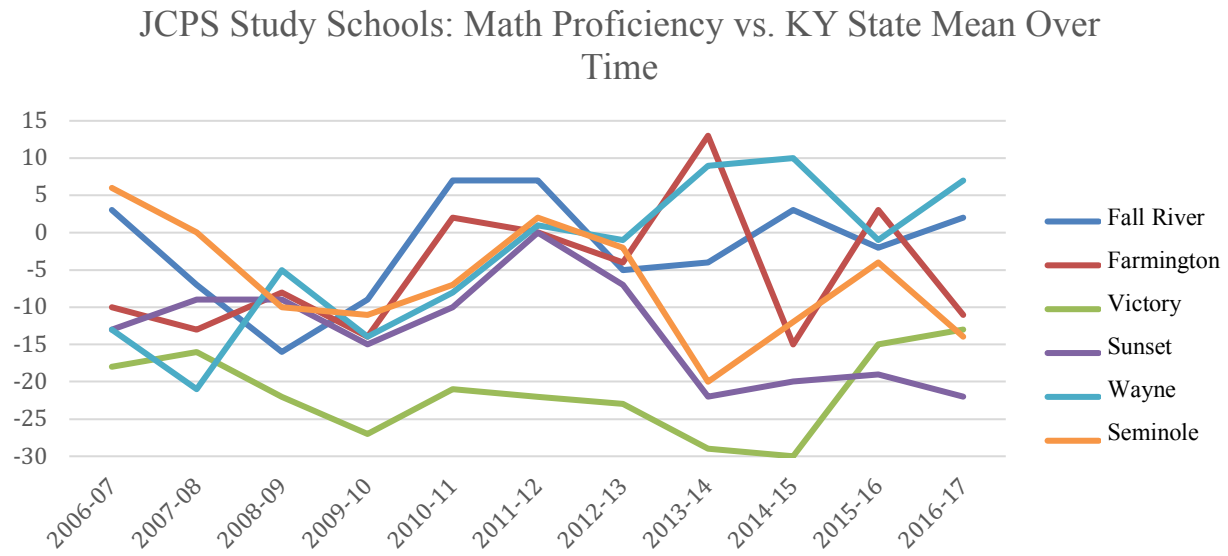




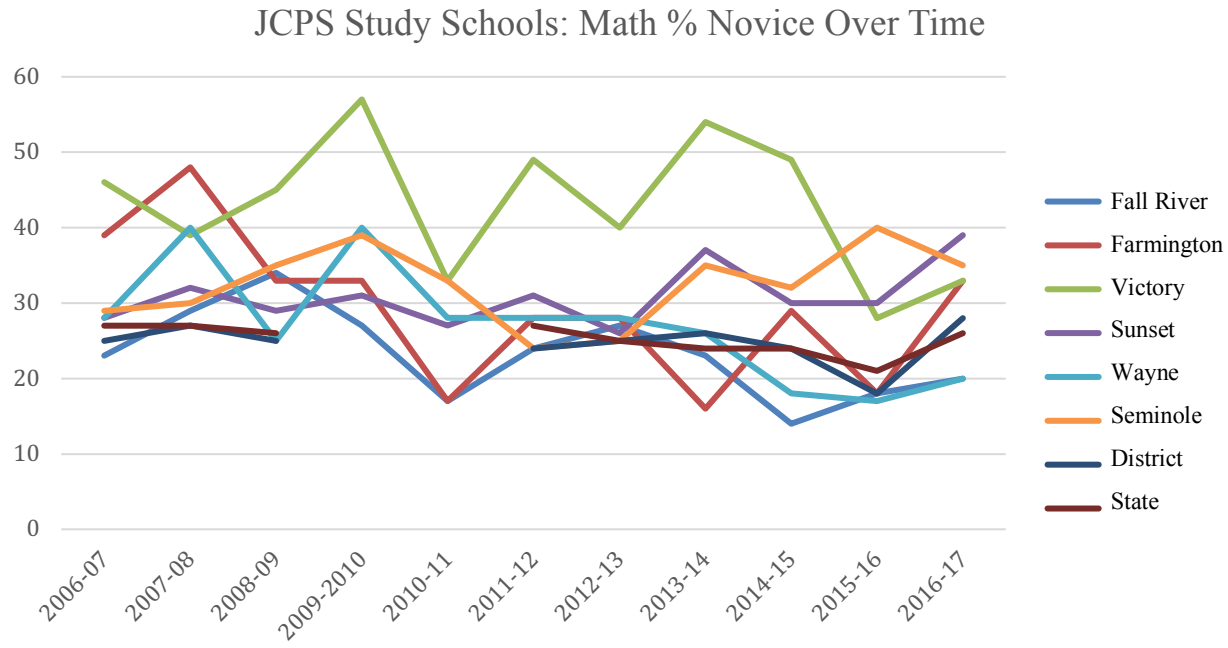
Math % Proficient/Distinguished

	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
Fall River	42	32	25	31	53	47	31	34	41	40	40
Farmington	29	26	33	26	48	40	32	51	23	45	27
Victory	21	23	19	13	25	18	13	9	8	27	25
Sunset	26	30	32	25	36	40	29	16	18	23	16
Wayne	26	18	36	26	38	41	35	47	48	41	45
Seminole	45	39	31	29	39	42	34	18	26	38	24
District	44	42	43	40	55	46	36	37	38	47	35
State	39	39	41	40	46	40	36	38	38	42	38





Math Performance and Novice Reduction



Appendix I
JCPS Culture and Climate Survey Data

Leadership

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wayne	55	59.4	44.1	76.8	80.7	85.5	83.2	81.1	85.9
Victory	69.3	72.7	74.4	73.2	69.1	79.2	81	79.5	84.3
Fall River	77.8	61.2	64.9	71.4	75.3	69.5	76.4	76	73.7
Sunset	92.9	82.9	71.6	79.4	81.9	85.3	83.4	80.1	76.4
Seminole	60.10	70.30	66.90	86.80	87.00	87.10	59.10	70.70	76.10
Farmington	53.9	59.1	57	87.5	88.5	85.5	86.8	82.8	81.4
JCPS			75.7	76.9	79.5	77.2	76.4	76	73.7

Culture

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wayne	62.14	64.13	58.98	62.54	67.00	67.44	69.98	71.29	68.86
Victory	61.50	65.64	62.82	61.89	61.56	65.10	65.20	67.23	67.18
Fall River	66.41	59.60	63.55	66.20	65.47	68.30	70.38	70.65	71.15
Sunset	84.52	70.90	68.77	63.87	60.62	64.11	63.43	64.14	67.19
Seminole	64.39	67.88	70.12	71.29	69.27	67.78	67.15	65.92	66.21
Farmington	68.59	72.13	74.04	73.81	71.51	70.03	72.34	74.89	75.59
JCPS			72.00	70.83	70.09	69.89	70.38	70.65	71.15

Instructional Capacity

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wayne	70.45	73.43	66.45	68.48	72.75	73.41	74.90	76.13	74.19
Victory	69.32	73.88	69.91	66.78	68.37	71.90	74.36	74.44	75.31
Fall River	72.95	68.74	70.13	71.05	70.03	69.92	74.05	73.64	73.41
Sunset	87.46	75.42	73.61	74.61	72.02	68.69	70.53	68.99	72.68
Seminole	71.76	76.97	75.42	75.10	74.10	75.91	72.67	70.28	68.97
Farmington	76.49	80.48	80.66	81.16	79.39	77.84	79.96	79.65	80.12
JCPS			76.53	75.22	75.32	73.86	73.59	72.24	72.92

Overall Results

	Leadership			Culture			Instructional Capacity			Aggregate Scores	
	Pre	Post	*Change*	Pre	Post	*Change*	Pre	Post	*Change*	**Net Change**	**Avg Post**
Farmington	56.67	83.67	*27.00*	71.59	74.27	*2.68*	79.21	79.91	*0.70*	**10.13**	**79.28**
Wayne	52.83	83.40	*30.57*	61.75	70.04	*8.29*	70.11	75.07	*4.96*	**14.61**	**76.17**
Victory	72.13	81.60	*9.47*	63.32	66.54	*3.22*	71.04	74.70	*3.66*	**5.45**	**74.28**
Fall River	67.97	75.37	*7.40*	63.19	70.73	*7.54*	70.61	73.70	*3.09*	**6.01**	**73.26**
Sunset	82.47	79.97	*-2.50*	74.73	64.92	*-9.81*	78.83	70.74	*-8.09*	**-6.80**	**71.88**
Seminole	65.77	68.63	*2.87*	67.47	66.43	*-1.04*	74.72	70.64	*-4.08*	**-0.75**	**68.57**
JCPS	75.70	75.37	*-0.33*	72.00	70.73	*-1.27*	76.53	72.92	*-3.61*	**-1.74**	**73.00**