Increasing Educator Effectiveness:

Lessons Learned from Teacher Incentive Fund Sites

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TABLE OF CONTENTS

INTRODUCTION

Created by the U.S. Congress in 2006, the Teacher Incentive Fund (TIF) represents the first federal initiative targeted directly at state and district efforts to introduce performance measures into educator compensation. TIF responds to a growing body of evidence that existing pay structures do not respond to labor force realities or adequately compensate the hard work of countless excellent teachers. TIF proponents argue that to attract and retain high quality educators, the teaching profession must recognize and reward teachers who accelerate student learning and those willing to take on the most challenging assignments, rather than basing compensation entirely on years of experience and degrees earned.

TIF supports state and district efforts to align their largest single education expenditure – educator compensation – with their student achievement goals. The traditional single salary schedule, a fixed system of incentives based on experience and degree-attainment, does little to align compensation with student achievement.[1] In fact, in the United States, districts spent over $14.8 billion on the increase in pay for teachers with master's degrees with no regard for impact on student learning.[2] While existing federal funds such as Title I and Title II can be used for performance based compensation, very few states or districts had done this prior to TIF.

As a competitive program, TIF requires applicants to be bold and innovative in their proposals in order to be selected. TIF's focus on high-need schools is designed to reverse the flow of more effective teachers away from these schools, and create an environment that attracts, develops, and retains accomplished educators. Its focus on innovation means that while some initiatives will thrive, other initiatives may fail. While performance based compensation is a key requirement of TIF, the program requires grantees to develop a comprehensive approach to teacher and principal effectiveness that aligns compensation with other processes such as evaluation, professional growth, career development, and leadership opportunities. The long-term goal of TIF is to increase student learning. To that end, the measurement of student learning growth must be a significant factor in educator performance evaluation and compensation. TIF projects are designed to increase the effectiveness of educators in high-need schools through a variety of means including recruitment, development, motivation, and retention. The U.S. Department of Education's most recent report of the 2006 and 2007 TIF grantees confirms the importance of teachers' perceptions of bonuses as acknowledgement of quality work and the need for a comprehensive approach to improving practice.[3]

The first two cohorts of TIF grantees are coming to the end their grants. We have selected five TIF sites that illustrate a range of approaches, challenges, and experiences. We reviewed student, educator, and policy impact at the following sites:

- Algiers, Louisiana: National Institute for Excellence in Teaching - TAP & Consortium of Algiers Charter Schools
- Amphitheater Unified School District #10, Arizona – Project EXCELL!
- Charlotte-Mecklenburg Schools, North Carolina – LEAP
- Guilford County Schools, NC – Mission Possible
- South Carolina TAP

Additionally, we examine four sites that received funding in 2010. Due to the limited data available at this early stage, our review of their work to date is primarily qualitative. We included them in part to illustrate how TIF is evolving in the context of other education reforms playing out at the state and district levels.

- Henrico County, Virginia – Learning Leaders
- Indiana Department of Education
- Knox County, Tennessee TAP
- Louisiana TAP

Each site has succeeded in making performance outcomes, including student achievement growth, a significant factor in how they evaluate and compensate teachers and principals. With a growing body of research illustrating the importance of effective teachers and principals in driving increased student learning,[4] TIF is an important federal commitment to more fully understanding how to use compensation systems and other supports to increase effective teaching in high-need schools. This is in part an economic imperative that demands attention at the federal level as an effective teacher can increase the annual earnings of a class of twenty students by $400,000 over time.[5] At the first five sites we have found states, districts, schools, and teachers who are adding significant value through increased collegiality, improved teaching practice, better professional development, and most importantly, increased student learning. The four additional sites appear positioned to demonstrate similar results based on our document analysis and interviews and early data.

While performance based compensation is a key element of each TIF grant, anyone who confuses the initiatives in these nine sites with failed merit pay schemes would be mistaken. Recent studies have demonstrated that basing merit pay for teachers on student test scores alone does not improve achievement.[6] We anticipate the Mathematica study currently being conducted with a national sample of TIF sites will confirm what is already clear on the ground, that pay alone does not improve teacher effectiveness.[7] Teaching is a complex task that cannot be improved simply by paying teachers for improvements in student test scores. Improving teaching practice requires accurate and fair assessment of performance, support for improvement, the spread of teaching expertise through career advancement, recruitment and retention of high performers, and an education system that aligns compensation with performance goals.

Examining five sites that are ending their TIF grants, and four sites that are beginning to implement, we see commonalities in their use of performance-based compensation systems (PBCS), and in how they align compensation with other aspects of teacher accountability and support. Based on the work of previous TIF sites and changes in the program's requirements, the four additional sites that received 2010 TIF money have gone even farther with the integration of compensation, professional development, career paths, and, evaluation. These sites seek to ensure that effective educators are teaching students with the greatest needs, and that these students are in schools led by effective principals. By improving instruction in these high-need schools over time, TIF supports sustained increases in student academic performance.

Five themes emerge from the opportunities and challenges at these TIF sites. The following themes include an illustrative example. A number of sites could have represented each theme.

1. **Rigorous and accurate evaluation must take place in order to provide educators with realistic and meaningful feedback on their performance and a clear path toward improvement.** From 2007-2011, students in the Consortium of Algiers Charter Schools in New Orleans, Louisiana have demonstrated tremendous growth in math and reading. Over those five years, the percentage of students considered proficient on Louisiana state assessments has increased by approximately 25 percent. The educators who have facilitated this growth attribute much of this success to transparent analysis of both formative and summative assessment through weekly job-embedded professional development aligned with extensive support. Indiana is implementing a similar program that will align rigorous evaluation with meaningful feedback, and preliminary results are promising, as illustrated in a year one report by *Interactive, Inc.* Charlotte-Mecklenburg Schools (CMS) attribute much of their success to their decision to implement

TIF through their district's curriculum and instruction instead of human resources. CMS' Curriculum and Instruction Department administered their TIF resources. This emphasis on teaching and learning facilitated significant improvement on the design and implementation of student learning objectives that teachers and administrators developed.

2. **Compensation is a key factor, but must be aligned with other aspects of human capital management to support improvements in instruction.** Amphitheater Unified School District Project Excell! schools in Tucson, Arizona have demonstrated statistically significant improvement in student growth from 2008-2011 in reading and mathematics on the Northwest Education Association MAP tests. Their program provides feedback through test scores, multiple evaluations, and weekly group meetings where teachers examine student work to identify areas for instructional improvement. Guilford County North Carolina's Mission Possible schools demonstrated increased composite scores on state assessments from 2006-2010 at all levels, ranging from 10.6% at the middle school to 18.7% at the elementary school level and 23.4% at the high school level. Retention has increased by 20% over the course of five years and teachers and principals are using the evidence provided to improve practice with support at the school and district levels. Amphitheater, Guilford County and Henrico are identifying areas for growth in order to provide necessary instructional coaching for teachers.

3. **Supporting teachers as individuals as well as teams creates a collaborative environment that emphasizes learning and improvement.** All nine sites have created systems where collaboration is prioritized, supported, and incentivized. Teams of teachers meet together at all of these sites, sometimes led by master or mentor teachers, to examine evidence and focus on student learning. Contrary to fears that performance pay will decrease collaboration, several sites have demonstrated increased collaboration. Interestingly, none of these sites has supported a fixed-tournament where teachers compete against each other for bonuses.

4. **Leadership positions with substantial autonomy and additional compensation attract effective educators to high-need schools.** Knox TAP is using teacher leaders to drive impressive outcomes for students in high-need schools. Located in Tennessee, a state that based the classroom observation portion of its new statewide evaluation system on the TAP evaluation rubric, Knox TAP is combining the resources of the National Institute for Excellence in Teaching with job-embedded professional development, career advancement, strategic compensation, and rigorous evaluation focused on growth to recognize and spread teaching expertise. In 2011-2012, the first full year of TAP implementation through the TIF 3 grant, 11 of 14 Knox TAP schools achieved more than two standard errors above a year of value-added growth in reading and math.

5. **The experiences of schools and districts implementing reforms can have a significant impact on policy at the state and local level.** South Carolina, Tennessee, Indiana and Louisiana are representative of this impact. All four states have taken lessons learned over the past six years at their local TAP sites to inform state policies around evaluation and compensation. For example, in South Carolina, the TAP evaluation system is one of the recommended statewide evaluation systems. Indiana's statewide teacher evaluation law also references TAP as an example. In Tennessee, experience with the TAP rubric in Knox provided a strong example as the state considered multiple possible rubrics as the basis for the statewide evaluation system TEAM: Tennessee Educator Acceleration Model.

These sites have sparked long overdue experimentation around the introduction of performance measures into educator compensation systems. They illustrate how changes in pay structures and processes, teacher and principal evaluation systems, professional development based on evaluation results, and new data systems to support this work are playing out on the ground in districts and states. Ultimately, these are good investments that should be sustained as they are making a difference in state and local policy, and most importantly, for teaching and learning.

ALGIERS, LOUISIANA: NIET - TAP & CONSORTIUM OF ALGIERS CHARTER SCHOOLS

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	95% of students are African American, 85% of students qualify for free and reduced meals, 9% qualify for special education services
IMPACT ON STUDENTS IN TIF SCHOOLS	All ACSA high schools have had at least a 94% graduation rate since 2009; since 2006, ACSA has closed the gap and exceeded the state average for percentage of students scoring basic or above in math and English Language Arts
IMPACT ON TEACHERS IN TIF SCHOOLS	Between 2006 and 2011, teacher attrition rates fell from 20% to 7%; 96% of teachers considered the level of collegiality in their schools either moderate or strong
LONG-TERM VISION FOR REFORM	TAP elements are incorporated into each school's charter and will be sustained beyond TIF; schools remain committed to providing teachers with meaningful feedback through ongoing evaluations and professional development led by teacher leaders; schools will continue to reward teaching excellence through performance based compensation

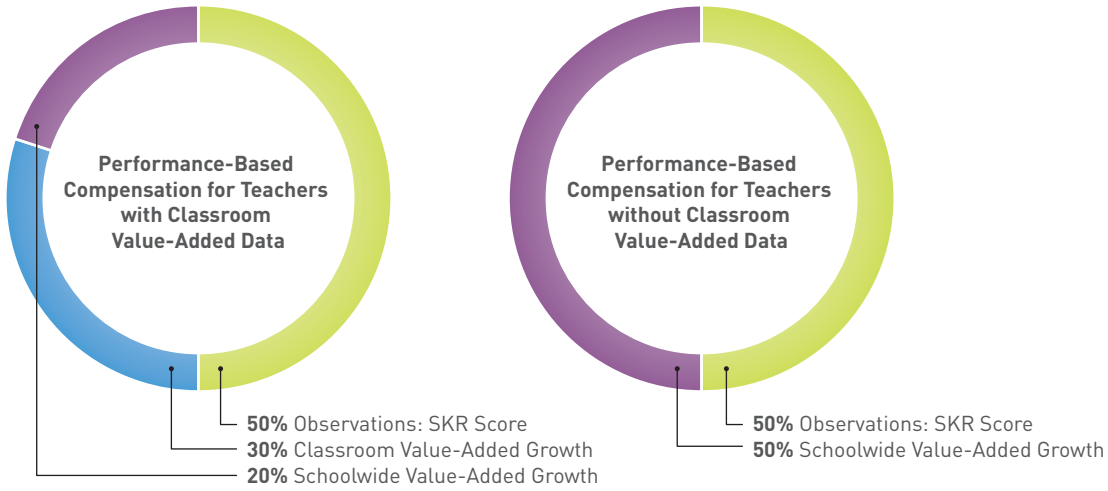
CONTEXT

In the wake of Hurricane Katrina, the Algiers Charter Schools Association (ACSA) opened on December 15, 2005 in the West Bank area of New Orleans. ACSA is open to all students by choice without admissions tests. The district consists of six K-8 or Pre-K-8 schools and three high schools serving over 5,400 students. Ninety-five percent of students are African American and 85% are eligible to receive free or reduced price meals. The ACSA schools partnered with the National Institute for Excellence in Teaching (NIET) to implement TAP: The System for Teacher and Student Advancement. TAP is a comprehensive system of evaluation, professional development, career advancement, and performance-based compensation. TAP is the heart of ACSA's human capital management system and is ACSA's primary driver for improving teacher effectiveness and growing student achievement and, as such, is incorporated into each school's charter (see Appendix B). The schools are part of a growing Louisiana TAP system, which includes more than 80 schools across the state that receive training and technical assistance from the Louisiana TAP Director and staff at the State Department of Education.

For performance compensation, the teacher's skills, knowledge, and responsibilities (SKR) score, as measured by the average of multiple classroom evaluations, counts for 50%; classroom value-added growth scores based on Louisiana state assessments account for 30%; and school-wide value-added gains determined by state assessments account for the final 20%. For teachers not teaching tested grades or subjects, school-wide value-added gains and the average of the classroom evaluations score each count for 50% of performance awards (see Figure 1). As additional classroom measures of student growth are put in place, large numbers of teachers will have individual classroom evaluation scores.[1]

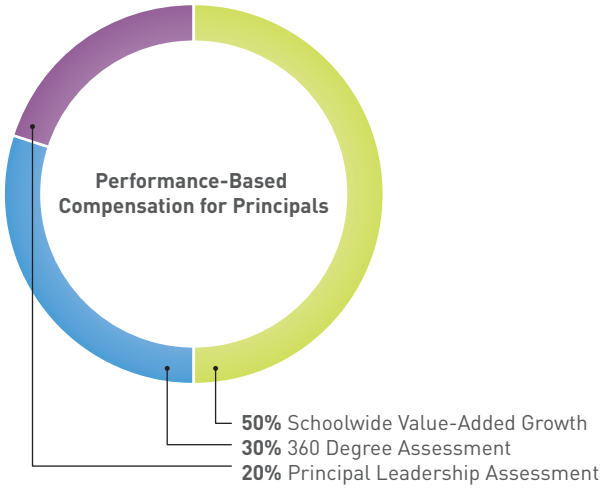
1. Cohort 4 TIF grants are required to measure individual student achievement growth for every teacher. This was not a requirement for previous cohorts.

fig. 1 Multiple Measures of Teacher Performance



Principals in ACSA received performance bonuses of up to $10,000 based 50% on school-wide student achievement gains, 25% based on the quality of TAP implementation as measured by a school review (see Appendix C), and 25% based on the Vanderbilt Assessment of Leadership in Education (VAL-ED), a multi-rater, evidence-based approach to measure the effectiveness of principals (see Figure 2).

fig. 2 Multiple Measures of Principal Performance

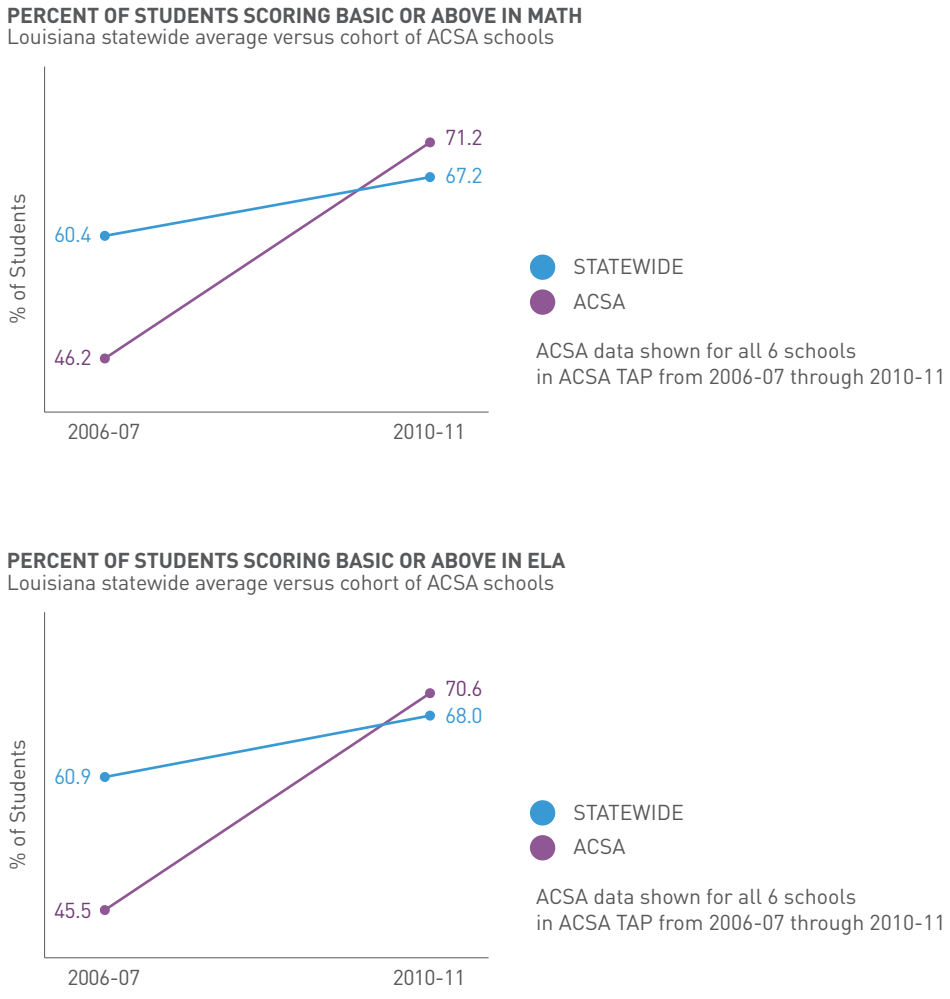


IMPACT ON SCHOOL AND POLICY OUTCOMES

ACSA has demonstrated positive student achievement and positive school culture since the implementation of TAP. Since 2009, all three ACSA high schools have had at least a 94% graduation rate, compared to a statewide graduation rate of only 70%. In the 2010-11 school year, 78% of ESS students graduated high schools, compared to about 40% at the state level as described in the ACSA 2011 Annual Report.

Moreover, using the TAP model, ACSA has closed achievement gaps and now exceeds statewide average scores in reading and math despite serving a significantly higher need population. The percentage of student scoring at basic or above in math has risen from 46.2% in 2006-2007 to 71.2% in 2010-2011. In English language arts, the percentage of students scoring at basic or above has risen from 45.5% to 70.6%. To provide perspective, in 2006-2007, ACSA schools were 14.2% below the state average for all students in math, and 15.4% below in English language arts. By 2010-2011, even with increases in the state averages, ACSA schools were 4% above the state average in math, and 2.6% above in English language arts (see Figure 3).

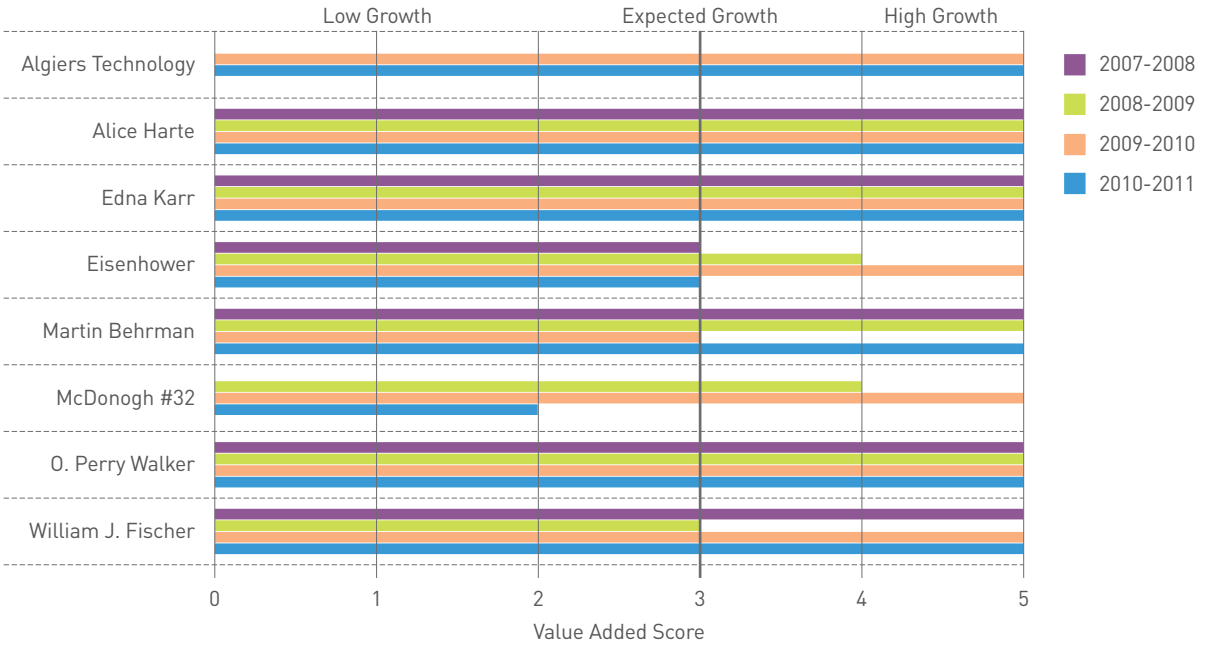
fig. 3 Closing Achievement Gaps



Source: LDOE data; analysis by NIET using student-weighted averages

Examining ACSA's student achievement growth from a different perspective, from the 2007-08 school year through the 2010-11 school year, all ACSA schools achieved a year or more of student growth each school year, with only one exception. Within those years, all schools achieved significantly more than a year of student achievement growth at least once, and six of the eight ACSA schools achieved significantly more than a year of student achievement growth two or more times in four school years (see Figure 4).

fig. 4 Academic Growth Scores: Algiers (ACSA) charter school's school years 2007-2008 through 2010-2011



TAP has also had a significant impact on ACSA's teachers. Trenise Duvernay at Alice M. Harte Charter School, says, "With TAP, there is a structure for them to analyze student work and determine where the needs are for each child. A lot of teachers who have taught for a number of years fear that it is just another program, but when teachers start to look at student work and data in weekly cluster groups, they see that their students are learning. That sells them on what TAP does." The reform has had a dramatic impact on teacher retention. In 2006-2007, the teacher attrition rate was 20%; however, that rate has fallen to 7%. Additionally, in the annual survey of teachers, 96% of teachers considered the level of collegiality in their schools either moderate or strong with 77% of those teachers rating it strong.

These teacher outcomes are particularly important for ACSA given the highly competitive environment in New Orleans for effective teachers. In Round 3 of the Teacher Incentive Fund, the Louisiana Department of Education was granted a substantial award to expand TAP throughout the state. In addition, a significant number of new charter schools have opened in and around the Algiers community, many of which have private, federal and state grant funding. As a result, there has been an effort to recruit experienced TAP teachers and administrators away from Algiers to these other schools, many of which are located in more desirable areas or have less challenged student populations. The expansion of TAP state-wide has also provided opportunities for career advancement as mentor teachers in the Algiers schools might now have the opportunity to fill master teacher positions in new TAP schools or master teachers are being recruited for administrative leadership positions in new TAP schools. An example of this recruitment has occurred at the state level where three members of the state TAP team are former Algiers teachers.

LONG-TERM VISION FOR REFORM

While fiscal stability is a concern in light of federal, state and local budget cuts, ACSA has made a significant commitment to TAP, funding 75% of the costs of performance compensation by the final year of the grant. In addition, TAP has fundamentally changed the way ACSA approaches teacher support and evaluation, and ACSA remains committed to providing teachers with strong support and growth opportunities through job-embedded professional learning led by teacher leaders and will continue to use TAP's rigorous evaluation. Further, the Algiers schools are part of a larger network of schools in Louisiana that are implementing TAP. As such, there is a state TAP support structure within the Louisiana Department of Education that works to assist the schools in developing long-term sustainability plans. ACSA leaders have reallocated state and federal funds to support TAP implementation, including Title I, Title II, and state tobacco settlement money and state grants.

AMPHITHEATER UNIFIED SCHOOL DISTRICT #10, ARIZONA – PROJECT EXCELL!

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS COMPARED TO DISTRICT	More ethnic and racial diversity, more poverty, and more ELLs than district
IMPACT ON STUDENTS IN TIF SCHOOLS	Based on NWEA MAP and DIBELS test data, EXCELL elementary schools have made gains greater than or equal to non-EXCELL schools even with higher numbers of ELLs and greater poverty
IMPACT ON TEACHERS IN TIF SCHOOLS	Increased collaboration and support; teachers are examining student work and changing practice together; recruitment stipends provided the necessary incentive to fill all open positions
LONG-TERM VISION FOR REFORM	Performance and hard-to-hire bonuses continue, as will collaborative teacher teams that examine student data

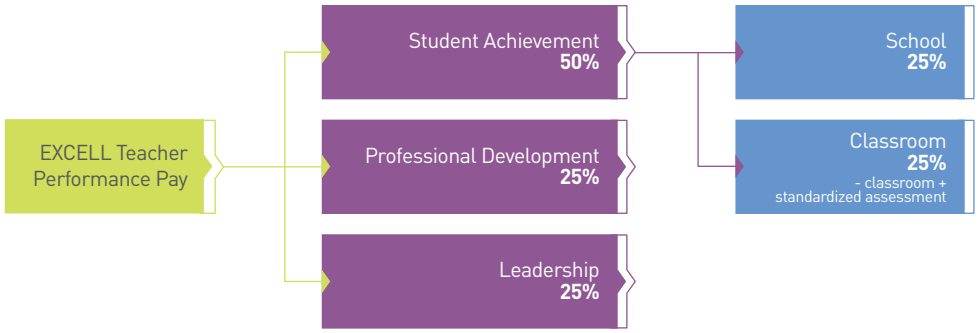
CONTEXT

Amphitheater Unified School District (Amphitheater) includes 20 K-12 schools on the north side of Tucson, Arizona. Amphitheater has a long history of innovative compensation structures. The district has been involved in some form of alternative compensation for over 20 years including career ladder and incentive pay programs initiated by the state. State funding for differentiated pay through Proposition 301 dried up during the recession; however, recently that source of funds has been increasing again and is being considered by TIF schools to fund performance compensation. The state is now focusing on funding performance pay based on teacher evaluations including student achievement through the Arizona Framework for Measuring Educator Effectiveness (SB 1040 and HB 2832).

Project EXCELL! (EXCELL) began in 2007 with a five year $29 million TIF grant. In the fall of 2007, district leaders, teachers and data analysts collaborated in the design of the program. The goals were: improved student achievement, differentiated pay for teachers and principals, improved professional development, recruitment and retention of highly-qualified teachers in hard-to-staff schools, and an improved district data-management plan. The 2008-09 school year marked the first full academic year of implementation.

EXCELL is using multiple measures to determine teacher and principal impact on school culture and student achievement. In order to participate in EXCELL, teachers must participate in all three aspects of the project: professional development, leadership and student achievement. Performance pay is based on student achievement (50%), leadership (25%), and professional development (25%)" (see Figure 5).

fig. 5 Amphitheater Performance-Pay Structure for Teachers



Bonuses for student achievement are based on growth over the course of the year through a model developed by Jay Midyett, Amphitheater's lead data analyst. Midyett's "value-added" growth model is based on scores from the Northwest Evaluation Association MAP test. The MAP test is an online adaptive assessment in reading and math that increases or decreases in difficulty as students answer correctly or incorrectly, which provides a measure of student learning without a "floor" or "ceiling effect." Midyett's model uses one to two years of baseline data that takes ELL status, special education status, socio-economic status and mobility into account (see Appendix D).

IMPACT ON SCHOOL AND POLICY OUTCOMES

Amphitheater has had a sizeable impact on teacher evaluation policy in Arizona. Amphitheater's experience has already informed the Arizona evaluation model described in the Arizona Framework for Measuring Educator Effectiveness (SB 1040 and HB 2832). Due to Amphitheater's success and experience, several other districts applying for TIF contacted Amphitheater to learn from their work.

The most recent analysis of MAP scores indicates growth from the first implementation year in 2008 to the present in both reading and math at all elementary, middle and high schools (see Table 1). The RIT scores reported by MAP indicate an upward trend with the average growth rate of 3.00 across all schools, which is statistically significant at the 0.01 level. From 2008 to 2010, educators received performance-based compensation for classroom and school-wide value added increases of 9% at the classroom level and 9.3% at the school level.

table 1 Gains in Reading and Math on MAP Tests in EXCELL Schools –*2008 to 2011

	SCHOOL	SUBJECT	SPRING 2008	SPRING 2011	GAIN
ELEMENTARY SCHOOLS	Donaldson	Reading	203.0	203.9	0.86
	Holaway	Reading	192.7	195.5	2.86
	Keeling Elementary	Reading	194.3	196.3	2.04
	Nash	Reading	192.0	194.8	2.78
	Prince	Reading	192.1	196.9	4.85
	Rio Vista	Reading	197.0	201.1	4.02
	Walker	Reading	199.3	202.1	2.82
	Donaldson	Mathematics	208.3	211.1	2.86
	Holaway	Mathematics	195.9	201.5	5.60
	Keeling Elementary	Mathematics	202.5	205.6	3.09
	Nash	Mathematics	200.3	205.0	4.67
	Prince	Mathematics	200.1	202.5	2.47
	Rio Vista	Mathematics	202.0	209.5	7.55
	Walker	Mathematics	204.9	208.7	3.76
K-8	Coronado	Reading	215.0	217.0	1.96
	Coronado	Mathematics	225.1	226.2	1.10
MIDDLE SCHOOLS	Amphi Middle	Reading	209.3	213.7	4.40
	La Cima	Reading	216.1	217.7	1.61
	Amphi Middle	Mathematics	221.2	224.0	2.74
	La Cima	Mathematics	225.6	227.3	1.65
HIGH SCHOOL	Amphi High	Reading	218.3	218.4	0.10
	Amphi High	Mathematics	229.3	231.5	2.19
				Average	3.0 ***

* Amphitheater High School does not have MAP data for 2008 – scores are from 2009.

*** Paired-sample 2-tailed t-test: significant at the .01 level

Additionally, site visits to EXCELL elementary schools and middle schools revealed strong evidence of a growing culture of collaboration. There were collaborative meetings by grade level or subject, and teachers formed self-selected groups engaged in job-embedded professional development focused on student work.

The district is collecting other data that illustrate the impact of EXCELL. Hard-to-staff positions have been filled with highly qualified teachers in all of the targeted areas. For example, four years ago, there were 11 high school math positions without a highly qualified teacher. By 2009-10, highly qualified teachers had filled all of these positions. All hard-to-staff positions have remained filled by highly qualified teachers. Additionally, the project evaluator is conducting interviews with randomly selected people regarding the project and implementation. Survey results and the findings from the interviews show practice changing and growing support for EXCELL. Teachers have moved from being wary of sharing student work with colleagues to making statements such as, “I need my group!”

LONG-TERM VISION FOR REFORM

District leaders and school personnel are confident that much of the collaboration and focus on student work will continue as they are now engrained in schools. Stipends for hard-to-staff positions and performance will be somewhat reduced, but they will continue to be provided. In fact, HB 2832 requires districts to provide incentives for top performing teachers and for top performing teachers to work in struggling schools by 2013-2014. Finally, job-embedded professional development will continue. State funding sources such as the Classroom Site Fund (Arizona Revised Statute 15-977) and the Instructional Improvement Fund (Arizona Revised Statute 15-979) can be used to sustain efforts during and beyond the five-year grant period. Additionally, Amphitheater can use federal Title I and Title II funds. As Arizona moves toward funding performance pay linked to evaluation and student achievement, Amphitheater is well-positioned to take advantage of these potential new funds due to its work under the TIF grant and its long history of experimentation with educator compensation.

CHARLOTTE-MECKLENBURG SCHOOLS, NORTH CAROLINA – LEAP

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS COMPARED TO DISTRICT	All TIF schools are high-need schools with most classified as Title I schools
IMPACT ON STUDENTS IN TIF SCHOOLS	Student outcomes in elementary reading, elementary math, and middle school math end-of-grade assessments have improved as teachers have improved the quality of student learning objectives (SLOs)
IMPACT ON TEACHERS IN TIF SCHOOLS	Teachers are improving the quality of their SLOs, which has a positive and significant correlation to improvements on end-of-grade assessments for students
SUSTAINABILITY	CMS has committed $8.6 million over the life of the TIF grant and is committed to continuing its focus on SLOs and value-added measures (VAMs) where available

CONTEXT

Charlotte-Mecklenburg Schools (CMS) in North Carolina has partnered with the Community Training and Assistance Center (CTAC) in Boston, Massachusetts in an initiative called Leadership for Educators' Advanced Performance (LEAP) through a TIF 2 grant. CMS is the 18th largest district in the country with 8,890 full-time teachers and more than 138,000 students. In 2007-2008, CMS received over $10.6 million to implement LEAP. While in the first three years of the grant LEAP provided recruitment and retention bonuses, it also offered performance pay during each year of the grant, with successful payouts issued as bonuses to teachers and administrators. Throughout the five years of the grant, LEAP has operated in 20 pilot schools covering all teachers of grades pre-kindergarten through grade 12. It now operates in 11 schools, with approximately 750 teachers and 30 administrators eligible to receive bonuses in 2011-2012. The number of eligible schools has diminished due to school closings and consolidations.

LEAP has four goals:

- Build teacher and principal capacity to increase student achievement by aligning and improving district systems in support of the schools;
- Create a compensation system for teachers and principals that provides differentiated levels of compensation based on student achievement gains and teacher/principal evaluations that include multiple classroom observations
- Support the recruitment and retention of qualified teachers and principals in hard-to-staff schools and subjects;
- Develop district capacity to implement, scale-up, evaluate, and sustain a performance-based compensation system, with measurable impact on student achievement.

CMS aims to introduce a performance-based compensation system district-wide by 2014. Currently in the program, teachers can earn up to $7,400 for student growth on value added measures (VAMs) where applicable, and student learning objectives (SLOs). For teachers where VAMs are not applicable, earnings can top $4,400 to $6,400, depending on whether teachers can partner with one or more colleagues that have VAMs.Administrators are eligible for earning up to $4,700 for assistant principals and up to $5,400 for principals based on leading the SLO process and school-wide VAMs.

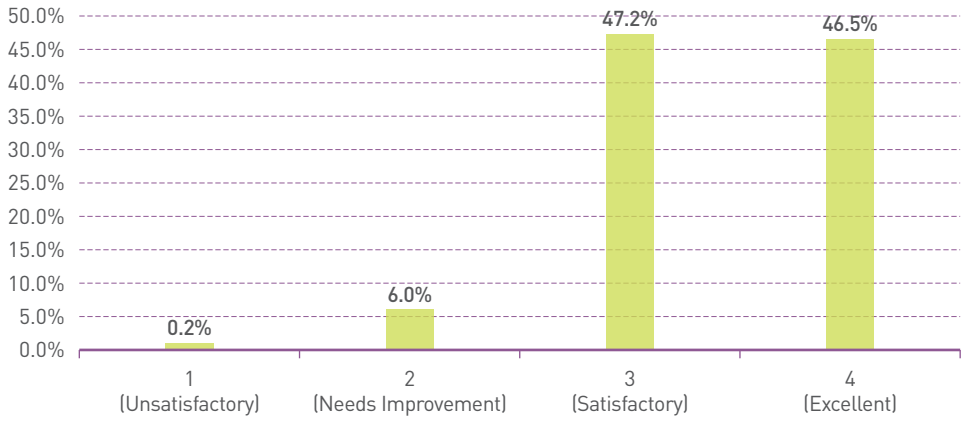
SLOs are created by teachers with the approval of school administration and the support of the CMS Curriculum and Instruction Department. According to Ann Clark, CMS' Chief Academic Officer, one of the keys to the success of LEAP, has been its location in the Curriculum and Instruction Department as opposed to Human Resources. The connection to Curriculum and Instruction was essential for connecting LEAP to student learning. SLOs align with the teacher evaluation process in North Carolina and assist teachers and principals in aligning professional development to the needs of teachers.

VAMs used in the district were implemented in the third year of the program, based on a district-developed value-added model, whereby a number of conditions were accounted for such as the age of the student and whether the student had a Limited English Proficiency (LEP) status. The conditions were identified based on district trend data with the idea that each year revisions to the model may be needed. The district is now moving more towards the SAS EVAAS statewide model for value-added measures, specifically the work of Bill Sanders.

IMPACT ON SCHOOL AND POLICY OUTCOMES

The Community Training and Assistance Center (CTAC) has been evaluating the impact of LEAP over the last five years. One of CTAC's primary tasks has been evaluating the quality of the SLOs. CTAC has documented a significant increase in the sheer volume of SLOs from 707 to 1904, and more importantly, in their quality. At a mid-program review, CMS SLOs included three types: class, target, and team. CTAC reviewed these SLOs and found that nearly 94% of SLOs were at level 3 or level 4 (See Figure 6). Moreover, teachers were increasingly meeting their SLOs at rates that are statistically significant. Teachers who had higher Mean SLO ratings (where ratings of all three types of SLOs were combined) were more likely to achieve value-added growth. There is a positive, statistically significant correlation between Mean and Class SLOs and student achievement on End-of-Grade exams in elementary reading, elementary mathematics, and middle school mathematics. The system developed by the district uses multiple measures of student achievement for teachers, including SLOs for all teachers and value added growth on high stakes tests for those with student test data. Subsequent data are currently being reviewed and the final evaluation will be presented and disseminated at the end of the grant.

fig. 6 Quality of SLOs Measured by CTAC Rubric: 2009-2010*



* Latest data available

These results are significant, as many states and districts across the country are looking for ways to connect student learning to teacher evaluation and compensation, particularly for teachers in untested grades and subjects. High-quality SLOs could assist districts in measuring individual teacher effectiveness in subjects or grade levels where standardized assessments are unavailable. The LEAP team views SLOs as "best practice" and part of good teaching. SLOs are particularly helpful tools for teachers who are wary of the validity of VAMs. While CTAC survey data show teachers and principals find the professional development provided by the LEAP team to be timely and of high quality, further work on targeting professional development needs for teachers and principals is needed; progress is being made to further differentiate professional development for these important stakeholders.

LONG-RANGE VISION FOR REFORM

Despite over $100 million in budget reductions and the reduction of more than 1,500 positions in 2010-2011, CMS remains committed to moving to a performance-based compensation system district-wide by 2014. However, an effective communication plan will be essential to scale up a performance-based compensation system district-wide. CMS has already committed over $8.6 million to augment the impact of TIF. Support for LEAP and its approach, which combines SLOs and VAMs to determine teacher effectiveness, remains strong at all levels including the Board, central administration, school-level administrators, and among teachers and parents. Having won the 2011 Broad Prize for Urban Education, district leadership appears to be poised to continue leading and managing change across CMS that could provide an example for similar initiatives nationwide.

GUILFORD COUNTY SCHOOLS, NORTH CAROLINA – MISSION POSSIBLE

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS COMPARED TO DISTRICT	All 50 Mission Possible schools have at least 50% of their students eligible for free or reduced meals, 8 schools funded through TIF 1, and an additional 20 through TIF 3
IMPACT ON STUDENTS IN TIF SCHOOLS	Elementary reading and math composite scores have increased by 18.7%. Middle school composite scores have increased by 10.6%, and high school composite scores have increased by 23.4%
IMPACT ON TEACHERS IN TIF SCHOOLS	The retention rates since 2006-2007 at Mission Possible schools have increased from 68% to 88%, which is a better retention rate than the rest of Guilford County Schools
SUSTAINABILITY	Mission Possible began with 22 schools without federal funding. It has now expanded to 50 schools with TIF support and saved the district an estimated $1.6 million in 2010-2011 alone by retaining 20% more teachers than 2006-2007

CONTEXT

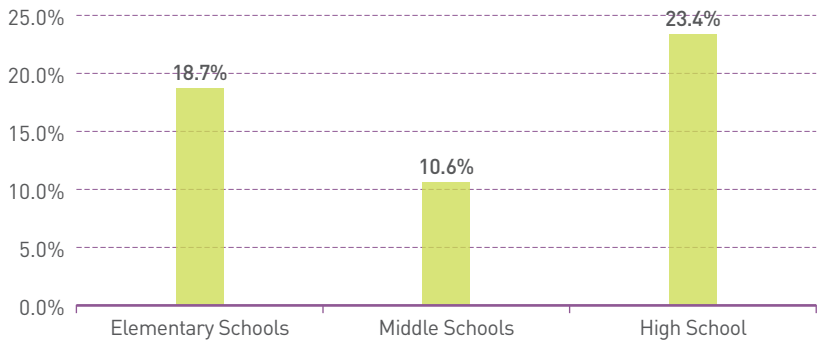
Mission Possible was launched to increase recruitment and retention in hard-to-staff subject areas in hard-to-staff schools. The Mission Possible initiative provided recruitment and retention initiatives for teachers of hard-to-staff subject areas in hard-to-staff schools in an effort to draw effective teachers to these high-need schools. In 2005-2006, Guilford County Public Schools (GCS) implemented Mission Possible, their performance-based compensation system, in 20 high-need schools and quickly expanded to include math teachers from two high schools. In 2006, GCS received $8 million through TIF 1 to expand Mission Possible to eight additional schools.

Mission Possible is expanding through a $23 million TIF 3 grant to an additional 20 schools. These schools will participate in the national TIF evaluation conducted by Mathematica. Therefore, 10 control schools will be eligible for recruitment incentives and a 1% salary bonus for participation, and the other 10 treatment schools will be eligible for full participation in performance-based compensation.

IMPACT ON SCHOOL AND POLICY OUTCOMES

Mission Possible appears to have impacted both teachers and students. Based on North Carolina state assessments' composite scores for reading and math, elementary, middle, and high schools participating in Mission Possible have improved since implementation. Elementary reading and math composite scores have increased by 18.7%. Middle school composite scores have increased by 10.6%, and high school composite scores have increased by 23.4% (see Figure 7). Moreover, this growth has occurred across 29 of the 30 schools with only one middle school demonstrating a slight decrease over four years (see Appendix E).

fig. 7 Increase in Composite Scores, 2006-2010



One of the primary reasons for implementing Mission Possible was to increase recruitment and retention in hard-to-staff subject areas in hard-to-staff schools. Prior to Mission Possible, principals at these schools would not receive any applications for key positions. Since 2006-2007, principals have received numerous applications for each position and 100% of those positions have been filled with highly qualified teachers. The retention rates since 2006-2007 at Mission Possible schools have increased from 68% to 88%, a better retention rate than the rest of GCS. Based on Department of Labor estimations, the cost of replacing an employee is 30% of his or her salary. Accordingly, this increased retention rate saved GCS an estimated $1.6 million in 2010-2011 alone as only 72 teachers needed to be replaced compared to 2006-2007 when 192 teachers had to be replaced (see Appendix F).

LONG-RANGE VISION FOR REFORM

The sustainability of Mission Possible is greatly enhanced because it started implementation prior to TIF funding. GCS had already made an investment in time, talent, and resources to move forward with performance based compensation. The 30 schools that have been Mission Possible schools will continue with the tenets of the program after TIF resources are exhausted. However, several changes have been made to the program to increase impact and to improve sustainability over the long term.

First, the set series of professional development courses in the original program have been replaced by options for 65 courses that were identified as need areas through teacher self-assessment, peer assessment, and principal evaluation. These changes have come about due to Common Core State Standards training that is occurring. The professional development load for teachers was becoming too great and teachers wanted more targeted training.

Second, in order to increase impact while decreasing costs, the Mission Possible team is reducing recruitment bonuses and increasing performance awards. In the original Mission Possible, teachers could earn recruitment bonuses of up to $10,000. Those bonuses have been cut to $5,000. Recruitment incentives have been added beyond math to include biology teachers, chemistry teachers, and teachers of exceptional children. The new Mission Possible model offers individual performance incentives starting at $2,000 and topping out at $12,000 for teachers who have student performance that averages two standard errors above the mean. Principals can earn up to $15,000 in individual performance incentives. The changes in the incentive model represent a shift in emphasis from recruitment to performance. Project Director Amy Holcombe believes that the recruitment issue has been addressed, and now GCS must work on retention and student performance issues more extensively. Additionally, the new model offers school-wide performance incentives on top of the existing individual performance incentives. According to Holcombe, this has been well-received by both teachers in un-tested areas and those in tested areas as they feel it is a "more accurate representation of performance."

Finally, Mission Possible has expanded to 50 schools over the last seven years. The program has evolved over time due to iterative feedback and a team committed to making their program work for principals, teachers and students. GCS is an exemplar of how performance-based compensation systems can strategically enhance schools; maintain the support of teachers, administrators, a school board, and a community; evolve to address changing needs; and be sustainable.

SOUTH CAROLINA TAP

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	Schools with 85% or higher free and reduced meals in mostly rural areas across the state
IMPACT ON STUDENTS IN TIF SCHOOLS	For all 5 years, 87% or more of participating schools demonstrated at least a year's growth in math and reading
IMPACT ON TEACHERS IN TIF SCHOOLS	Teacher collegiality and school cohesiveness improved at statistically significant levels over the grant period
SUSTAINABILITY	3 districts sustained the TAP model using Title I and Title II funds, local resources, and Alternative Technical Assistance funds for underperforming schools

CONTEXT

Reflecting its dedication to implementing meaningful teacher effectiveness reforms, South Carolina has received funding through TIF 1, TIF 2, and TIF 3. TAP has been successfully implemented in traditional K-12 schools as well as in elementary/middle school combinations and in an alternative center. SCTAP schools funded through TIF are among the highest need schools in the state with high poverty and persistently low achievement levels. Forty-five schools are currently receiving funding through TIF 3, while other schools are implementing South Carolina TAP (SCTAP) with resources other than TIF. All SCTAP schools receive training and technical assistance from the SCTAP Director and his staff at the South Carolina Department of Education within the Office of School Transformation.

SCTAP schools redesigned their evaluation systems to include performance measures for teachers and principals. Teacher effectiveness is measured in multiple ways including student achievement growth at the classroom and school levels, as well as observed classroom practice or a skills, knowledge and responsibilities (SKR score) over four observations averaged into a final SKR score (See Appendix G). Principal effectiveness is measured based on the school's student achievement growth measured by a value-added score, evaluation of the principal's leadership using the TAP Leadership Team observation rubric, and observed leadership skills using a 360 degree assessment called the Vanderbilt Assessment of Leadership in Education tool (VAL-ED).Performance on these measures translates into performance-based compensation for principals and teachers (see Appendix G).

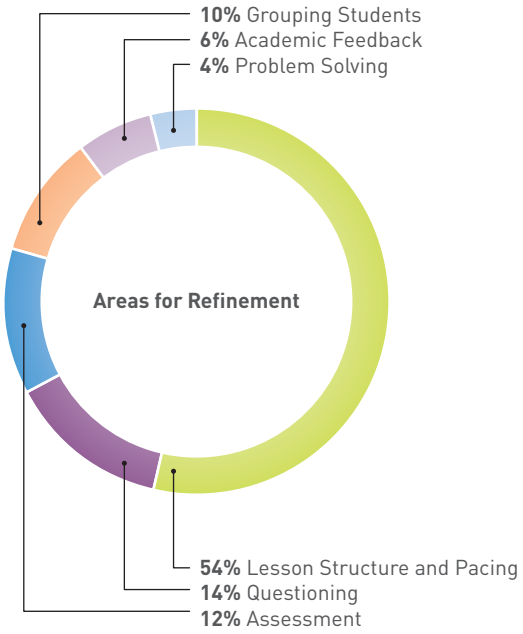
In addition, each school forms a Leadership Team which includes master and mentor teachers (who receive differentiated compensation for taking on these roles) in addition to the principal and other administrators. Leadership team members are trained and certified as evaluators, enabling the school to create a robust evaluation system with multiple observations of each teacher, every year.

IMPACT ON SCHOOL AND POLICY OUTCOMES

Data and feedback from observations of classroom practice feed directly into professional development. For example, Leadership Teams can analyze the evaluation results of a single individual, a group of teachers, or the school as a whole, to identify areas for growth.

Figure 8 below illustrates areas for improvement (refinement) that were identified most often in this example school.

fig. 8 Example Report – Areas for Refinement



Over the course of the year, about half of all teachers in this school had lesson structure and pacing as an area for improvement in their classroom observations. School leaders can use this information in designing professional development and support. The needs of teachers, as identified during evaluations, are addressed by teacher leaders as they provide professional development in weekly sessions and individual classroom based coaching. In this way, professional development is tied to student and teacher needs as identified by data, and is made more coherent across a school.

SCTAP schools use Master and Mentor teachers to provide school-based professional development for individuals as well as groups of teachers based on their needs and the needs of their students. Figure 9 illustrates how professional development is provided in these schools.

fig. 9 Job Embedded Professional Development Cycle

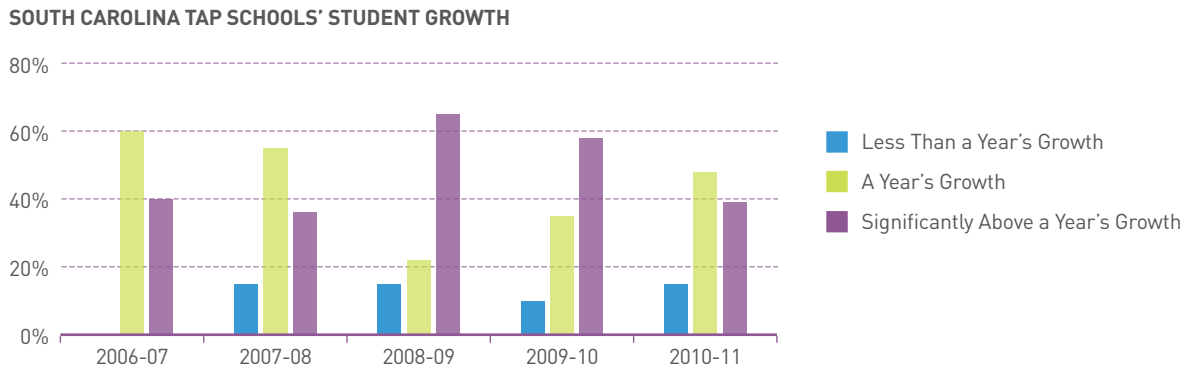
LEADERSHIP TEAM
- Principal
- Assistant Principals
- Master Teachers
- Mentor Teachers

CLUSTER GROUP
- Master Teachers
- Mentor Teachers
- Career Teachers

CLASSROOM
- Students
- Career Teachers
- Leadership Team members as needed

Schools that have implemented SCTAP have seen significant improvement in student learning outcomes. As part of South Carolina TIF's external evaluation, all schools from TIF 1 and TIF 2 were matched with schools of similar demographics. The comparison demonstrated that 13% more of the TAP schools made AYP than the non-TAP schools. Over all five years, at least 87% of participating schools have demonstrated at least a year's worth of growth in reading, math, science, and social studies based on SAS EVAAS value-added measures (see Figure 10).

fig. 10 Schools Making A Year, or Well Above A Year's Growth



In addition to improved learning outcomes and more effective systems for professional growth, SCTAP has impacted state education policy in South Carolina. Through the three rounds of TIF, SCTAP has been a state level program. This has had several benefits for state educational policy. SCTAP's high profile allowed it to impact teacher and principal evaluation policy initiatives, teacher compensation, Race to the Top applications, federal School Improvement Grants (SIGs), and Elementary and Secondary Education Act (ESEA) waiver. As described in the ESEA waiver, the new state teacher evaluation reflects elements of the TAP rubric with five performance levels and 19 indicators. Additionally, SIG schools must implement teacher evaluation and performance pay, with two of the three suggested options being TAP or the NIET evaluation rubric as a component. Turnaround schools, Palmetto Priority Schools, are encouraged to implement "TAP or similar proven, research-based reform model.[8]"

In interviews with 17 state officials, district leaders and teachers connected to these TIF sites, without exception they pointed to the change in culture that came with the implementation of TAP. Contrary to the myth that school reform initiatives incorporating performance pay will negatively impact collaboration and school culture, teachers across the state in varied contexts reported that collaboration had increased. David O'Shields, superintendent of Laurens 56, summed up the change as "encouraging innovation and discouraging isolation." As the superintendent of a district that has both TAP and non-TAP schools, he spoke passionately about the difference TAP makes. O'Shields explained that unique to TAP is its "focused instructional conversations using a common language to examine how students learn—not what teachers do to perform."

Survey data collected by the external evaluator demonstrates this change as well. Over the course of the grant cycles, there has been a statistically significant increase in teacher-reported collegiality in SCTAP buildings. Moreover, there has been a statistically significant increase in school cohesiveness with 70% of faculty reporting that their schools were more cohesive since the implementation of TAP.

Located in rural South Carolina, administrators in Laurens 56 cite the advantage TAP provides in recruiting and retaining effective teachers. O'Shields says, "Prior to TAP, we were losing 30% to 40% of our teachers each year. That number is down to 5 to 8%." They also credit TAP with their increased ability to identify and release ineffective teachers. Assistant Superintendent Maureen Tiller adds, "Dismissing ineffective teachers is much easier because there are so many pieces of evidence. Multiple evaluations are conducted by multiple people and tied to value-added measures. The whole system is tied to support teachers receive."

LONG-TERM VISION FOR REFORM

Educators and policymakers have overcome several key challenges in the implementation of SCTAP, and already three districts have continued to sustain TAP despite reaching the end of their TIF grant. First, having consistent leadership was essential to ensuring sustainability and long-term fidelity to the TAP model. The three sustaining TAP districts had stability in key administrative positions including superintendents during and after the TIF grants. This was necessary to implement SCTAP with fidelity, as districts that had superintendents and key leaders in place over the course of the TIF grant were able to sustain efforts that closely aligned with the four tenets of the TAP system.

TIF implementation has also provided lessons in how to build effective teacher leadership. SCTAP leaders note that successful teacher leaders are those teachers with the greatest ability to teach students and work with adults. Several administrators emphasized that master and mentor teachers should not be selected for their loyalty, longevity, or even solely on their ability to improve student test scores. These key positions need to be filled by people that can communicate effectively with students and teachers. Selecting the most effective people for these positions can have a dramatic impact on classroom instruction, student achievement, and teacher collegiality over the short and long run.

Finally, as South Carolina has faced ever-decreasing budgets, SCTAP sites are accessing other resources to sustain their programs. Because South Carolina has a state TAP model, it has increased flexibility in how it repurposes resources. With 14 schools in the state already implementing the full TAP model without TIF funding, South Carolina is proving that its efforts to support teachers with multiple evaluations, professional development, career advancement and performance pay can be sustained beyond TIF. SCTAP schools are using federal Title I and Title II funds, local resources, and Alternative Technical Assistance funds for underperforming schools to sustain their efforts.

HENRICO COUNTY, VIRGINIA: COMMUNITY TRAINING AND ASSISTANCE CENTER

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	Eight high-need schools with percentages of students eligible for free-and-reduced price lunch ranging from 53% to 84%, and all schools consist of at least 90% minority students
IMPACT ON STUDENTS IN TIF SCHOOLS	Student learning targets are set by teachers and administrators to determine impact on students based on external measures such as Virginia's Standards of Learning and NWEA MAP tests
IMPACT ON TEACHERS IN TIF SCHOOLS	Accountable for meeting the district's identified professional quality standards as well as student growth targets, teachers receive an annual summative evaluation score and support from coaches—teacher leaders identified based on evaluations during the initiative's first year
LONG TERM IMPACT	With a $26 million district budget deficit for 2012-2013, fiscal sustainability is challenging, yet efforts are underway to embed key elements in school culture and systems

CONTEXT

Henrico County Public Schools (HCPS) in Virginia has partnered with the Community Training and Assistance Center (CTAC) in Boston, Massachusetts in an initiative called Learning Leaders through a TIF 3 grant. They received $16.4 million to implement Learning Leaders for five years with the goal of sustaining those efforts after the grant period. The goals of the Learning Leaders Initiative are to build teacher and principal capacity to increase student achievement, to develop a performance-based compensation system based on student achievement, and to retain high-performing educators.

Teachers and principals can earn substantial incentives for changes in professional practice and student growth. Teachers can earn as much as $8,000 in incentives per year with $3,000 coming from quality classroom practice, and $5,000 from meeting student learning targets. The incentive for classroom practice is based on the district's Professional Growth and Evaluation Process model, with refocused standards based on the Danielson Framework. Principals conduct two formal observations and four walk-throughs (shorter observations that do not require a post-conference). The student learning targets are set by the teacher and administrator and must be based on a mutually agreed upon external assessment. The student learning targets were included as a part of the initiative in the 2011-2012 school year. Virginia's assessments of the Standards of Learning (SOLs) and the NWEA MAP Test for language arts and math are being used to determine the student learning targets.

Principals can earn incentives of up to $10,000. They can earn $4,000 if they meet targets for teacher growth and another $3,000 for meeting school-wide achievement and another $3,000 for meeting student growth targets. While student growth is already a criterion for teacher and principal incentives in the Learning Leaders initiative, the rest of the state is also moving in this direction. For the first time in 2012, the state has revised its own Standards of Learning to incorporate growth as well as proficiency.

IMPACT ON SCHOOL AND POLICY OUTCOMES

HCPS and CTAC will determine impact through multiple measures. All teachers and principals will receive an annual evaluation that will determine if they have met a set of professional qualities and instructional responsibilities (PQIR) standards, which will incorporate student growth, student learning targets, and classroom observations.

CTAC is also conducting annual research on impact and educators' perceptions of Learning Leaders through focus group and online surveys. Preliminary results indicate that educators are aware of the goals of the initiative. However, principals appear to be more aware and are also more positive than teachers about the initiative. One administrator's comment illustrates this positive regard. "For both teachers and principals, it's the opportunity to accelerate the conversations around curriculum and instructional issues. This incentive will change the culture of interaction regarding instructional issues. It will lead to positive and connected relationships."

After the first year, teachers report a greater sense of accountability and feel that they are being observed more frequently, but teachers openly wonder if resources will be provided to help them improve. In 2011-2012, coaches were identified based on their evaluation scores from the first year of Learning Leaders to work with other teachers. The ratio of coaches to teachers is between 1:20 and 1:30. Coaches receive a $2,000 stipend and spend the majority of their time with teachers who are struggling. Overall, teachers express confidence in the Learning Leaders leadership, but are concerned about teachers and schools who are not eligible for the initiative either because they are teachers of music, art, and physical education, or because they are in comparison schools. Teachers also feel more acutely the need for more time and specifically tailored professional development than do administrators. Additionally, elementary teachers are more positive about the evaluation process than secondary teachers.

LONG-RANGE PLAN FOR REFORM

Sustainability requires that educators see evidence that the hard work of change is paying off, in terms of their own effectiveness and student results. It also requires that a sufficient level of resources be available to support the reform over time.

Henrico laid considerable groundwork for this reform in advance of applying for the grant. The district therefore opted in its highly rated grant proposal to forgo a planning year and go directly into implementation in Year 1. That decision aimed for faster, greater returns on the investment. However, implementation was affected by the complications of tighter than expected budgets and new federal and state policy changes.

In Henrico as elsewhere, budget cuts have affected staff morale. That reality makes any change initiative more difficult. For Learning Leaders, some problems were predictable. For example, everyone could anticipate that administrators would struggle to find time to conduct all the observations now required. Other issues turned out to be more complex than expected. Notably, the process of setting student learning targets has taken much more teacher time and effort than originally anticipated, leading to frustration and delaying the full deployment of the coaching support that teachers want and need. These factors have strained the capacity of the one full-time person who administers the grant.

Due to changes in Virginia state policy, meanwhile, the district also now has to adapt its teacher evaluation system to incorporate new requirements that base evaluation significantly on student academic progress. This presents a hurdle for the district, but is likely to bolster the confidence of Learning Leaders teachers as they are part of a system that is aligned to new state requirements. The experiences these teachers have had in setting student learning targets put them ahead of the game this fall, when all other Henrico teachers began a similar process. Besides seeing that their efforts now provide a model for the district, Learning Leaders teachers were buoyed by this fall's full launch of the initiatives' coaching support.

Year 3, therefore, holds promise of being a turning point in terms of front line educators experiencing the benefits, rather than only the burdens, of making the changes inherent in this reform. Their resulting buy in would bode well for sustainability. On balance, despite the hurdles of early implementation, Learning Leaders has made major strides in creating new systems that support teaching and learning, especially in the district's highest need schools. There is strong potential, therefore, for organizational sustainability.

INDIANA DEPARTMENT OF EDUCATION

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	44 high-need schools across the state – elementary, middle, and high schools
IMPACT ON STUDENTS IN TIF SCHOOLS	In grades 4-8, the Indiana Growth Model will be used to determine impact
IMPACT ON TEACHERS IN TIF SCHOOLS	Over the three years prior to receiving TIF, the teacher turnover rate in these 44 schools has been approximately 20%. The average vote to accept the TAP system in these schools was 91%
LONG-RANGE PLAN FOR REFORM	Legislation in Indiana has moved toward performance based evaluations and compensation. For the 2011-2012 school year, Indiana's Excellence in Performance Grant provided $6 million to support performance pay initiatives throughout the state

CONTEXT

With a $47.6 million dollar TIF 3 grant, the Indiana Department of Education (IDOE) is partnering with the Center for Excellence in Leadership of Learning (CELL) at the University of Indianapolis and the National Institute for Excellence in Teaching (NIET). The partners are implementing the TAP system in 44 elementary, middle, and high schools across the state. These 44 schools include traditional public schools, charter schools, and K-12 neighborhood schools in rural and urban areas of the state. They have incorporated the 4 elements of the TAP system (see Appendix B) in order to increase educator effectiveness, improve student achievement, and close achievement gaps. Indiana has demonstrated strong interest in the TAP system. At its initial informational meeting about the TAP system, CELL and IDOE were expecting approximately 60 people, but nearly 200 district representatives attended.

Indiana TAP is using multiple resources to increase the effectiveness of their implementation, which began with a full planning year. This first year included 9 days of training from NIET to all 44 schools including principals, master teachers, and mentor teachers. Additionally, IDOE, CELL, and NIET conducted an information campaign and developed a website to disseminate information on the TAP system to facilitate the requisite 75% approval vote from educators in participating schools. Demonstrating a wide base of support, the average vote in those 44 schools adopting the TAP system was 91%. To increase fidelity of implementation and support, Indiana added 6 regional coordinators to serve as coaches to principals, master teachers, and mentor teachers.

SCHOOL AND POLICY OUTCOMES

In September 2012, *Interactive Inc.* released an independent evaluation of the impact of the first year of the initiative. The study of outcomes over the 2011-2012 school year found

- TAP schools outperformed control schools in 15 of 21 possible score combinations, a trend that held across socioeconomic categories and for nearly every ethnicity. In elementary grades, pass rates were 3 percentage points higher in language, math and combined scores
- 79 percent of career teachers agreed that "TAP has improved the instructional practices of teachers at this school" and approximately two-thirds agreed that "students performance has improved since TAP was implemented at this school"
- 88 percent of administrators said they would prefer to work at TAP schools

Indiana TAP is following the TAP system's approach of building a comprehensive system of educator accountability and support that includes performance-based compensation for teachers and principals. These schools adopted a new performance evaluation system that uses multiple measures of effectiveness, including four classroom observations each year, as well as classroom student achievement growth and school wide achievement growth measures. By using multiple measures, this project is helping teachers to improve their classroom practices and understand how changes in practice impact their students' achievement growth. The project creates capacity and expertise at the building level by training teacher leaders—master and mentor teachers in each school—to work with administrators on a school leadership team.

Performance based compensation is available to teacher leaders who excel in these positions, as well as to all teachers and principals based on increases in student learning growth and improvements in their own practices as observed by trained and certified evaluators. $2,500 per teacher is placed in a pool, and teachers are eligible for anywhere from zero to approximately $8,000 based on their performance. Performance is measured based 50% on classroom evaluation results (Skills, Knowledge, and Responsibilities scores derived from at least 4 formal observations annually); 30% on student achievement growth; and 20% based on school wide gains. In addition to their SKR scores, teachers in untested subjects and grades can base 50% of their bonus on results in a related grade or subject in consultation with their principal, or on school wide growth. Currently there are not growth measures at the high school level, so 50% of the bonus is based on the SKR score, and 50% is based on the State High School Accountability Framework.[2] Teachers in hard-to-staff positions and schools will receive an additional recruitment bonus of $500. In 2012-2013, effective teachers who are retained will also receive $500.

Principals can earn up to $10,000 and assistant principals can earn up to $5,000 in bonuses. Elementary and middle school principals and assistant principals' earn 50% of their bonus based on the school's Indiana Growth Model score, 30% based on the TAP leadership team rubric, and 20% based on a working conditions survey. High school principals and assistant principals earn 50% of their bonus based on the Indiana School Accountability Framework, 30% based on the TAP leadership team rubric, and 20% based on a working conditions survey.

Susan Abbott, middle school teacher and union representative, described the way the TAP system is being perceived.

> Last year, when we put the system up for vote, there were four high schools that were allowed to vote. Two voted yes, and two voted against it. Two middle schools, ours being one, were allowed to vote for it. The other one didn't want it, and we did because we just thought, why not take advantage of the resources? This year, the other middle school voted 97% that they were going to go to the TAP system next year because they're seeing what good things are happening at our building.

2. The Indiana State High School Accountability Framework is based on multiple measures including improvement in graduation rates, improvement on end or course assessments, and the percentage of students passing Advanced Placement, International Baccalaureate, and dual college and career courses.

To determine the impact of the TAP system, the IDOE will evaluate academic performance overall, academic growth, hiring, and retention in TIF schools as they compare to non-TIF schools with similar demographics. The Indiana Growth Model, based on the Colorado Growth Model, will be used to determine growth over time. In addition to the TIF evaluation, IDOE will compare student pass rates on state tests, performance in Indiana's accountability system, and academic growth in TIF compared to control schools.

A tough topic in many states is evaluation. Principal Alan Metcalfe finds the TAP system to have tremendous advantages.

> The nice thing about the TAP evaluation process is the fairness. Every teacher knows the expectations. Through cluster group meetings [weekly job-embedded professional development provided by the master or mentor teachers], through the follow-ups, we have really spent time delving into what are the important pieces of the evaluation rubric and how that affects your instruction which then effects student achievement. Because everyone is getting the same instruction on the rubric, everyone has the same expectations.

LONG-RANGE PLAN FOR REFORM

Like South Carolina and Louisiana, Indiana TAP is taking advantage of its connection to its state department of education to align resources to support the TIF initiative. Having consulted with several of these other states, Indiana TAP is attempting to re-purpose federal Title I and Title II funds in addition to support their efforts. All schools and districts are concerned about sustainability. Several districts have adopted the TAP evaluation framework district-wide so that even schools not participating in the TIF project are using TAP evaluations. However, these 44 schools are committed to continuing the fundamental components of the TAP system beyond the TIF grant. They are all exploring sustainability options at this early stage. IDOE and CELL are working to provide resources and information to that end. The new state policies around teacher evaluation and compensation will require a reallocation of funds that should enable TAP to continue post-TIF, according to TAP Director, Jennifer Oliver.

Indiana's emphasis at the state level on changing teacher evaluation and compensation could provide additional opportunities for Indiana TAP. For the 2011-2012 school year, Indiana's Excellence in Performance Grant provided $6 million to support performance pay initiatives throughout the state. This initiative is likely to continue in coming years, and provides a source of ongoing funding. Indiana's Public Law 90, its new teacher evaluation law, requires that two-thirds of a teacher's salary increase from year to year must be based on performance. A teacher deemed "ineffective" cannot receive an annual salary increase. This law goes into effect in July 2012 for any contracts bargained after that point. Given the performance orientation of the TAP system and the support it provides, Indiana TAP may be well positioned to expand as districts negotiate future contracts.

KNOX COUNTY, TENNESSEE: NIET – TAP & KNOX COUNTY SCHOOLS

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	14 schools – 70% of students qualify for free and reduced meals, and the majority of the schools are being led by new administrators
IMPACT ON STUDENTS IN TIF SCHOOLS	For 2010-2011, of the 14 schools, 12 schools achieved significantly more than a year of growth on state assessments, and another achieved one year of growth
IMPACT ON TEACHERS IN TIF SCHOOLS	After the first year of implementation, 93% of teachers in Knox TAP schools say TAP has increased collegiality
LONG-TERM VISION FOR REFORM	Knox County is implementing multiple components of TAP in all district schools in addition to promoting 6 TAP educators to administrative positions, including 3 to the District Leadership Academy

CONTEXT

Knox County Schools (KCS) in Tennessee is partnering with the National Institute for Excellence in Teaching (NIET) to implement the TAP system in 14 schools with 702 teachers and 42 administrators through a $26 million TIF 3 grant. These schools include 3 high schools, 3 middle schools, and 8 elementary schools. Just over 70% of the students in these schools qualify for free and reduced meals, and the majority of these schools are being led by principals in their first three years of experience. The TIF 3 grant allowed KCS to expand its TAP schools from 4, which had been locally funded by the Great Schools Partnership since 2007, to 18 schools district-wide. In addition to the work already occurring locally, Tennessee based the classroom observation portion of the new statewide evaluation system, which was implemented in the 2011-2012 school year, on the TAP classroom observation framework. According to Knox TAP Director Keith Wilson, "Appreciation from teachers and principals has been bolstered by the support that the TAP system provides, ensuring professional development for teachers is connected strongly to the best practices of the evaluation model." Of the 87 schools in KCS, 18 are using the TAP system, but the district is instituting many of TAP's elements into professional learning communities and professional development district-wide.

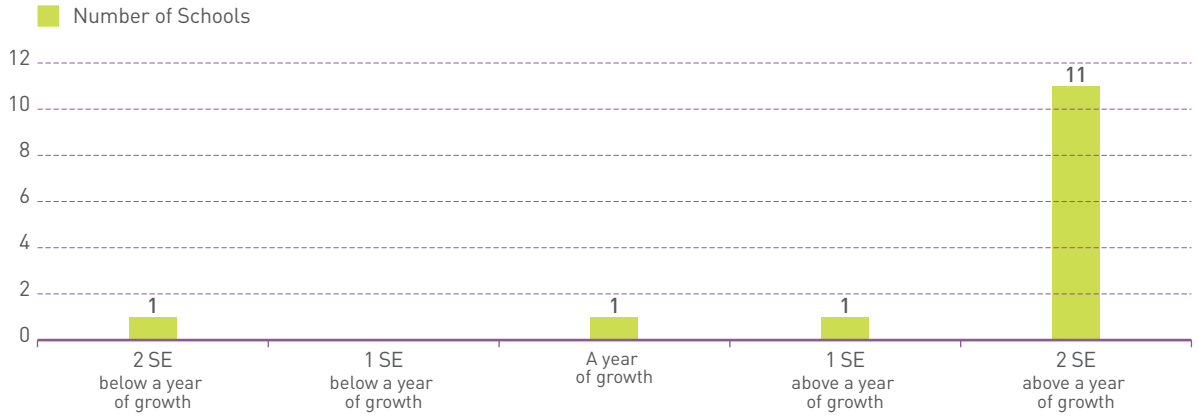
In order to compete with other districts and schools in the area that offer higher compensation, Knox TAP is offering significant compensation opportunities in addition to career advancement. In order to retain teachers in hard-to-staff subjects and schools, Knox TAP is providing a one-time $3,000 salary augmentation to new teachers to the building who choose to remain in that school. Master teachers earn a salary augmentation that ranges from $10,161 to $11,957 for additional responsibilities and time. Mentor teachers earn salary augmentations that range from $4,480 to $5,620. These master and mentor teachers work additional days and meet with their teams of teachers to examine student work for 50-60 minutes per week in order to develop and implement strategies that will increase learning. The ratio of classroom teachers to master and mentor teachers is 15:1 and 8:1 respectively. For 2011-2012, teacher bonuses for master, mentor, and career teachers ranged from $0 to $5,611. Principals and assistant principals in Knox TAP schools earned up to $8,250 and $4,500 respectively based on school wide value-added growth, the state evaluation framework for principals, and the TAP leadership team rubric.

IMPACT ON SCHOOL AND POLICY OUTCOMES

Although it was only their first year of implementation, in 2011-2012 the 14 schools that received TIF resources demonstrated impressive initial results.

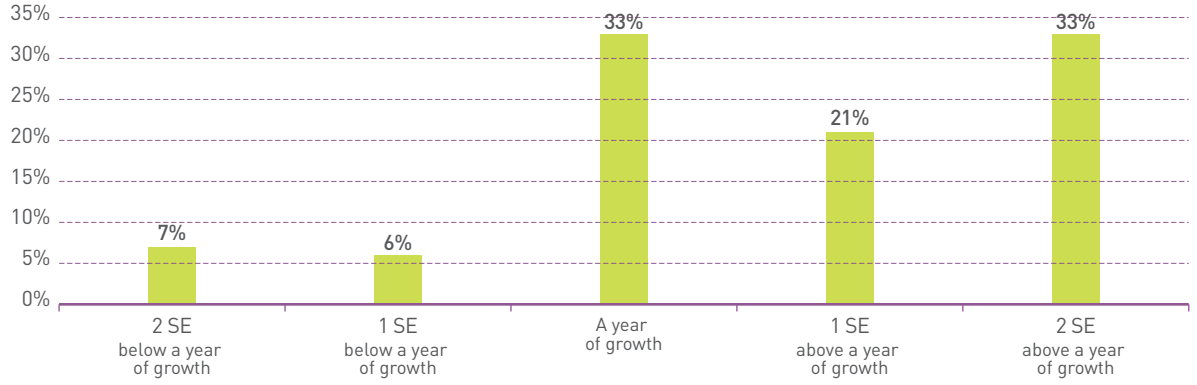
Schools showed an impressive trend as 13 of 14 schools demonstrated at least a year of value-added growth. In fact, 11 of the schools demonstrated 2 standard errors above a year of growth for their students in reading and math on Tennessee state assessments (See Figure 11).

fig. 11 Knox TAP Schools' Value-added Ratings 2011-2012 (n=14)



Of the 243 teachers with classroom-level value added scores in those 14 schools, 87% had students who demonstrated at least one year of growth on state assessments in reading and mathematics (See Figure 12).

fig. 12 Knox TAP Teachers' Classroom Value-added Ratings 2011-2012 (n=243)



Additionally, in 2012, Tennessee received a waiver for the accountability provision of No Child Left Behind. Tennessee began using annual measurable objectives (AMOs) to determine if schools were progressing toward better outcomes for their students. Only 3 KCS schools met their AMOs, but 1 of them was a TAP school. Moreover, 2 of the 14 TAP schools were recognized by the state as Reward Schools for being in the top 5% of the state for value-added growth and/or performance on state assessments. Before implementation began,

three TAP schools finished in the bottom 10% of the state for performance, making the need for additional support clear. That support is already paying off in the first year as 2 of those 3 schools demonstrated growth that was 2 standard errors above a year of growth.

Dr. Jim McIntyre, the Superintendent of KCS, has seen the impact that TAP has had on these schools and on the 4 original KCS TAP schools. According to McIntyre, "TAP perfectly aligns with our strategic plan in terms of developing high quality teachers, improving collaboration, supporting high needs schools, and providing innovative and strategic compensation incentives for our educators." For 5 years, a private organization, the Great Schools Partnership, has funded 4 TAP schools and is providing some supplemental funds to the 14 TIF schools. Not only is McIntyre incorporating some of the TAP tenets into district wide professional learning communities, a position for a peer teacher evaluator at each building, he is also implementing the Advance Perform Exel (APEX) Strategic Compensation System. While KCS is doing excellent work in attempting to implement some components of TAP, the more comprehensive resources and support from NIET cannot be discounted and growth score comparisons may demonstrate this. Using value-added data from the past three years according to the Tennessee district report card, KCS is performing at a "C" level[3] in reading and a "B" level[4] in math. Of the 14 TAP schools, based on data from their first year of implementation, 79% or 11 schools, are performing at an "A" level[5] in both reading and math. Moreover, these scores are coming from some of the highest need schools in KCS.

LONG-TERM VISION FOR REFORM

These moves by the superintendent in conjunction with the results the TAP schools are delivering is changing the way KCS serves students. Some of these changes are benefitting the district and creating challenges to those implementing TAP. For example, 6 TAP educators have been promoted to administrative positions around the district, including 3 to the District Leadership Academy. This pipeline from TAP schools to district leadership will likely spread many of the instructional practices that are part of the TAP system but will challenge the 14 schools that are participating through TIF to continue to develop new leaders. Fortunately, this appears to be happening as 8 mentor teachers have moved into master teacher roles and career teachers are stepping into new roles as mentor teachers.

Both Keith Wilson and David Kovach, the TAP Project Directors from KCS and NIET respectively, agreed that selecting the right instructional leaders is essential for long-term impact. This is true for both administrators and teachers in TAP schools. They both agree, "Principals must place a high value on sharing leadership, focusing on instruction, and growing through reflective practice both individually and collectively." Principals are essential for supporting a culture of collaboration. Effective TAP principals view leadership as the facilitation of a set of tasks aligned to the single goal of meeting students' needs. Decisions about how these tasks will be completed are based upon the leadership team's capacity to meet the goal rather than individual personality traits or the simple delegation of duties.

Moreover, the selection of master and mentor teachers is essential to improving teaching and learning in TAP schools. Wilson described the types of teachers that must fill these roles. "We need people that are of high capacity, are reflective, can model effective strategies in the classroom, and can work well with adults." In order to select these types of teacher leaders, KCS implemented a rigorous selection process that included an application, a sample lesson, references, and a district-level and a school level interview by district administrators, principals, and teachers.

With the financial support of the Great Schools Partnership, federal School Improvement Grants, Title I and Title II funds, a state TIF grant, state Race to the Top funds, and district initiatives to implement key elements, TAP's influence is likely to grow in the 87 Knox County schools. If the 14 TIF 3 schools are an indicator, KCS is on a positive trajectory of improved student outcomes for its neediest students.

3. One year of growth on average.
4. 1 standard error above a year of growth on average as calculated by EVAAS.
5. 2 standard errors above a year of growth on average.

LOUISIANA STATE DEPARTMENT OF EDUCATION – TAP

MEASURE	DATA
CHARACTERISTICS OF TIF SCHOOLS	The schools involved in TIF 3 are from 7 LEAs, with below average student achievement, and an annual teacher turnover rate of 33%
IMPACT ON STUDENTS IN TIF SCHOOLS	Impact on students will be determined by student achievement growth. All principals, assistant principals, and teachers will have 50% of their bonus tied to student achievement growth
IMPACT ON TEACHERS IN TIF SCHOOLS	While this is still being determined, the first 42 schools to adopt the TAP system through TIF 3 have voted for it by nearly an 80% average
SUSTAINABILITY	The TAP system has grown from 5 schools in 2003 to 54 schools in 2010-2011. Louisiana TAP is already re-purposing Title I, Title II, IDEA, state funds, and local funds to augment the TIF 3 grant

CONTEXT

The Louisiana State Department of Education is partnering with the National Institute for Excellence in Teaching (NIET) in 7 local education agencies: Ascension Parish, Desoto Parish, Jefferson Parish, Pointe Coupee Parish, St. Mary Parish, Tangipahoa Parish, and West Baton Rouge Parish. Currently in 42 schools, by 2012-2013, the $49 million TIF 3 grant will support 69 schools with the implementation of the TAP system. The teacher turnover rate of participating schools is 33%, and more than a fourth of the teachers have less than 5 years of experience. Student achievement, particularly of economically disadvantaged and minority students, is extremely low.

As is the case in other sites using the TAP system, the Louisiana TAP goals are to increase the percentage of effective educators, build and sustain a performance based compensation system (PBCS), and increase student achievement. Teachers can earn up to a $10,000 incentive based on value-added growth and a minimum of four observations per year. Principals can earn up to a $10,000 incentive based on school-wide value added gains, the Vanderbilt Assessment of Leadership in Education (VAL-ED), and their performance on the annual program review, which assesses implementation of the TAP model (see Appendix H).

IMPACT ON SCHOOL AND POLICY OUTCOMES

With the large number of LEA's this TIF 3 grant will impact 2,800 educators and 33,500 students. The TAP system requires a faculty vote to adopt the program school-wide. The average vote for adopting the TAP system in the first 42 schools was nearly 80% demonstrating the receptivity of educators. The leadership team for Louisiana TAP attributes this to the fact that TAP is a known entity and has been operating in Louisiana since 2003. All 70 districts in the state as well as charter organizations were invited to the initial meeting to determine interest in TAP and in TIF.

The early impact of this grant was captured in a June 2012 Education Trust report titled "Building and Sustaining Talent: Creating Conditions in High Poverty Schools That Support Effective Teaching and Learning". Ed Trust's Sara Almy describes how Ascension Parish is using TAP and TIF to shape their approach, with "…a focus on strong leadership, a campus-wide commitment to improving instruction by analyzing student data and reflecting on practice, and a collaborative environment that values and rewards individual contribution." [9]

As the report goes on to note, Ascension is among many districts nationwide that are working hard to improve teacher quality. But is unusual in at least two ways:

- They explicitly focus on access to quality teaching for low-income students. The leaders in these districts know that just improving the average quality of teaching isn't enough: If the students who most need quality teachers don't get them, we'll never close damaging achievement gaps.
- They understand that moving toward equitable access to quality teaching requires more than simply evaluating teachers more honestly and offering bonuses to terrific teachers who are willing to work in high-poverty schools. If we are going to attract and hold strong teachers in our highest need schools, we need to transform these schools into places that recognize, reward, and support good teaching, routinely provide teachers with opportunities to work with others and hone their craft, and provide expert teachers more opportunities to advance.

While data are still being collected on the impact on student achievement and teacher retention, the structures to support improvements are in place. Almy summarizes: "TAP emphasizes learning opportunities that are relevant, continuous, and led by expert instructors. To inform and drive the system's professional development efforts, TAP employs a thorough instructional accountability system that includes regular and rigorous performance evaluations. The results are then used to inform professional development planning, career advancement, and compensation. The system also requires educators to participate in regular and meaningful collaboration and self-reflection within the structure of the school day."

Supporting this comprehensive reform in the way Ascension schools think about teaching and equitable distribution of teaching talent, is a performance based compensation system designed to reinforce the district's goals. Louisiana TAP schools use multiple measures of teacher performance including value added measures of classroom and school growth, as well as four classroom observations of every teacher every year using the TAP Skills, Knowledge, and Responsibilities (SKR) Teaching Standards.[10] Principal performance is based 50% on school-wide value added growth, 30% on a 360 degree assessment called VAL-ED, and 20% on observations of principal leadership using the TAP Leadership Team observation tool (see Appendix H). In addition to annual performance bonuses based on these measures of effectiveness, Louisiana TAP provides effective teachers who become master teachers with full release receive a $10,000 stipend, and mentor teachers with a 20% release receive a stipend of $5,000.

LONG-TERM VISION FOR REFORM

The TAP system was in place in Louisiana long before TIF 3 funded the Louisiana Department of Education. The TAP system has grown from five TAP schools in the entire state to 54 schools in 2010-2011 and to 69 schools in 2012-2013. With multiple TAP sites around the state and support from NIET, additional expansion seems likely.

This grant's placement in the Louisiana Department of Education should aid the alignment of state resources to help districts begin to think differently about supporting and compensating educators. Title I, Title II, IDEA, state and local funds are already being used in addition to TIF 3 funds at these sites. TIF-funded TAP schools are serving as models for other LEAs interested in implementing the TAP system. In fact, TIF 3 has funded a robust communication plan to disseminate information about what is happening in each LEA. The communication plan includes videos and toolkits that can assist districts as they think about implementing TAP. Additionally, Louisiana has established and convened the TIF Grant Advisory Board. The primary purposes of the Board are to monitor progress to make recommendations for improvement and to ensure the long-term sustainability of the TAP system.

As more master and mentor teachers are trained through the TAP system, capacity is increased and these experts can help to seed the reform in other locations. This investment in human capital through advancing and compensating effective teachers should not be discounted when considering the sustainability of efforts to increase student learning. Sheila Talamo, the Louisiana TAP director, asserts that the key is to find the right people to implement the TAP system. "We have to identify the best principals, master teachers, and mentor teachers for this to work and be sustainable."

APPENDIXES

APPENDIX A: COMPARISON OF FEATURES BETWEEN 9 TIF SITES STUDIED

		TIF 1 AND TIF 2					TIF 3			
		ALGIERS, LA	AMPHITHEATER USD, AZ	CHARLOTTE-MECKLENBURG, NC	GUILFORD COUNTY, NC	SOUTH CAROLINA	HENRICO COUNTY, VA	INDIANA	KNOX COUNTY, TN	LOUISIANA
PROFESSIONAL DEVELOPMENT	Job-embedded	●	●	●	●	●	●	●	●	●
	Collaborative teacher groups - clusters	●	●		●	●		●	●	●
	Student work regularly examined in clusters	●	●			●		●	●	●
	Field-testing of lessons by master/ mentor teachers	●				●		●	●	●
	Significant principal involvement	●	●	●	●	●	●	●	●	●
EVALUATION	Differentiated evaluation results for teachers	●	●	●	●	●	●	●	●	●
	At least four evaluations of all teachers	●	●			●		●	●	●
	Multiple evaluators	●	●			●		●	●	●
	Classroom assessments considered for student achievement		●	●						
	Classroom-level value-added model	●	●	●	●	●	●	●	●	●
PERFORMANCE COMPENSATION	Classroom-level payouts	●	●	●	●	●	●	●	●	●
	School-level payouts	●	●			●		●	●	●
	Differentiated pay based on student achievement (50% or more of evaluation)	●	●	●	●	●	●	●	●	●
	Principal performance pay	●	●		●	●	●	●	●	●
CAREER ADVANCEMENT	Master teachers (full release and additional compensation)	●	●			●		●	●	●
	Mentor / Coaches (partial or full release and additional compensation)	●	●			●	●	●	●	●
	Advancement based on contribution to student learning and ability to work with adults	●	●			●	●	●	●	●

APPENDIX B: TAP ELEMENTS OF SUCCESS

TAP: The System for Teacher and Student Advancement was developed by the Milken Family Foundation and is now managed and supported by the National Institute for Excellence in Teaching (NIET). Detailed information about TAP, NIET, and the sites nationwide implementing the TAP system can be found at www.tapsystem.org. The elements listed below provide a framework for the TAP system.

Multiple Career Paths offer teachers powerful opportunities for greater responsibility with commensurate pay. This typically means having career teachers, mentor teachers and master teachers. Career teachers are typical classroom instructors. Mentor teachers are classroom instructors who also hold some coaching and mentoring responsibilities and serve on the school's instructional leadership team. Master and mentor teachers are selected by showing sustained student achievement as well using their ability and leadership to coach peer teachers.

Ongoing Applied Professional Growth allows teachers continuous, on-site development opportunities focused on the needs of their students to enhance their overall effectiveness in their craft. This professional development is designed by the leadership team and occurs during the school day. It is designed around the immediate implementation of identified vetted strategies that have proven success.

Instructionally Focused Accountability is represented by fair evaluations based on clearly defined, research-based standards. The rubric-based observation and evaluation system allows this process to be a professional growth opportunity rather than a bureaucratic process. Teachers are observed a minimum of four times throughout the school year by certified, trained evaluators.

Performance-Based Compensation allows for salaries and performance incentives to be tied to responsibilities, instructional performance and student achievement results. Performance incentives are given to teachers based on a value-added approach to student achievement within the teachers' classroom, as a whole school and on their instructional performance. Typically, each incentive is weighted and grouped together for the total performance-based compensation.

APPENDIX C: ALGIERS CHARTER SCHOOL ASSOCIATION PRINCIPAL EVALUATION COMPONENTS

IMPLEMENTATION YEAR	EFFECTIVENESS OF TAP IMPLEMENTATION (FIDELITY OF IMPLEMENTATION)			SCHOOL-WIDE STUDENT ACHIEVEMENT GAINS			VANDERBILT ASSESSMENT OF LEADERSHIP IN EDUCATION		
	ALLOCATION PERCENTAGE	AWARD LEVEL*	SCHOOL REVIEW SCORE	ALLOCATION PERCENTAGE	AWARD LEVEL*	SCHOOL VALUE-ADDED SCORE	ALLOCATION PERCENTAGE	AWARD LEVEL*	VAL-ED SCORE**
1	25%	Level 3	2.75 ($1250)	50%	Level 3	3.0 ($2500)	25%	Level 3	75-79.9 percentile ($1250)
		Level 4	3.0 ($1875)		Level 4	4.0 ($3750)		Level 4	80 – 89.9 percentile ($1875)
		Level 5	3.5 ($2500)		Level 5	5.0 ($5000)		Level 5	90 -99 percentile ($2500)
2	25%	Level 3	3.0 ($1250)	50%	Level 3	3.0 ($2500)	25%	Level 3	75-79.9 percentile ($1250)
		Level 4	3.5 ($1875)		Level 4	4.0 ($3750)		Level 4	80- 89.9 percentile ($1875)
		Level 5	4.0 ($2500)		Level 5	5.0 ($5000)		Level 5	90-99 percentile ($2500)
3 AND BEYOND	TBD	Level 3	3.0 ($1250)	50%	Level 3	3.0 ($2500)	25%	Level 3	75-79.9 percentile ($1250)
		Level 4	4.0 ($1875)		Level 4	4.0 ($3750)		Level 4	80-89.9 percentile ($1875)
		Level 5	4.5 ($2500)		Level 5	5.0 ($5000)		Level 5	90-99 percentile ($2500)

*Level 5 = 100% of award allocation, Level 4 = 75% of award allocation, Level 3 = 50% of award allocation

**The percentile rank is provided by interpreting a principal's total score on the VAL-ED instrument, core component and key process effectiveness ratings against a national representative sample that included principals, supervisors and teachers.

APPENDIX D: AMPHITHEATER STUDENT GROWTH SCORE MEASUREMENT

A value-added growth analysis using MAP test scores[6] matched at the student level was developed for Project EXCELL! The following linear regression model is used to predict academic growth for students. This model was run separately for reading and mathematics and for each grade 2 through 9. Each model for grades 3-8 was constructed using two baseline years (2005-06 and 2006-07). The two baseline years of regression coefficients for each subject and grade were averaged together for parameter stability. The analyses also include parameter adjustments to correct for regression to the mean effects. For grade 9, 2007-08 was the baseline.

$$\text{RIT POST} = B0 + B1\ (\text{RIT PRE}) + B2\ (\text{SES}) + B3\ (\text{SPED}) + B4\ (\text{ELL}) + B5\ (\text{MOBILE}) + e$$

RIT POST :	Each students' predicted spring RIT score
$B0$:	A growth constant for each model
$B1$ (RIT PRE):	Adjusts the predicted growth based on the pre-measure (fall RIT score). Students with low starting scores are expected to grow more than students with high starting scores
$B2$ (SES):	Adjusts the predicted growth based on performance of students from low socioeconomic families
$B3$ (SPED):	Adjusts the predicted growth based on performance of students who receive special education services
$B4$ (ELL):	Adjusts the predicted growth based on performance of students who are English language learners
$B5$ (MOBILE):	Adjusts the predicted growth based on performance of students who are mobile
e :	Error for each model

To determine if each student's growth is better than predicted, a residual is computed as the difference between the observed and predicted post scores.

$$\text{Student growth residual} = (\text{Observed SPRING RIT}) - (\text{Predicted SPRING RIT})$$

Residuals near 0 indicate that the student's actual growth is close to predicted growth. Positive residuals indicate that the growth is better than predicted and negative residuals indicate that the growth is lower than predicted.

6. Rasch Unit: a unit of measure that uses individual item difficulty values to estimate student achievement. This creates an equal interval scale.

APPENDIX E: MISSION POSSIBLE STUDENT ACHIEVEMENT IN GCS: MATH AND READING COMPOSITE SCORES[7]

ELEMENTARY SCHOOL	07-08	08-09	09-10	10-11	CHANGE
Bessemer Elementary	35.8	50.8	53.2	60.6	24.8
Caesar Cone Elementary	40.9	53.7	55.7	54.3	13.4
Fairview Elementary	45.1	40.9	49.6	56.2	11.1
Gillespie Park Elementary	35.3	45.0	59.2	66.8	31.5
Julius I Foust Elementary	42.0	46.2	50.0	56.2	14.2
Kirkman Park Elementary	34.2	50.0	59.7	63.0	28.8
Oak Hill Elementary	24.9	29.7	45.8	65.2	40.3
Parkview Village Elementary	40.1	37.9	44.5	40.8	0.7
Union Hill Elementary	51.6	55.7	44.9	54.2	2.6
W M Hampton Elementary	31.5	41.3	52.9	61.3	29.8
Waldo C Falkener Sr Elementary	43.1	51.8	57.8	59.7	16.6
Washington Montessori School	49.0	54.6	55.7	64.6	15.6
Wiley Elementary	38.5	39.3	41.4	52.0	13.5

MIDDLE SCHOOL	07-08	08-09	09-10	10-11	CHANGE
Allen Middle	52.3	62.0	66.7	62.3	10.0
Aycock Middle	62.2	69.2	75.1	72.2	10.0
Ferndale Middle	46.0	62.0	60.0	61.0	15.0
Jackson Middle	41.1	50.9	57.6	55.0	13.9
Otis L Hairston Sr Middle	37.7	45.1	54.9	50.1	12.4
Penn-Griffin School for Arts	69.2	74.3	74.1	68.8	-0.4
Welborn Academy of Sci & Tech	50.0	59.3	60.2	63.6	13.6

HIGH SCHOOL	07-08	08-09	09-10	10-11	CHANGE
Ben L Smith High	39.7	42.1	57.6	54.4	14.7
Dudley High	51.3	44.8	57.6	59.9	8.6
Eastern Guilford High	54.7	48.4	61.0	60.7	6.0
High Point Central High	67.3	64.4	69.1	66.5	-0.8
Middle College at Bennett	53.3	56.3	86.5	89.1	35.8
Middle College at NC A&T SU	41.5	60.7	72.3	84.8	43.3
Southern Guilford High	59.9	63.6	73.1	74.7	14.8
T Wingate Andrews High	44.3	47.8	52.1	57.6	13.3
The Academy at Central	32.7	55.8	73.9	81.1	48.4
The Academy at Smith	45.7	77.9	93.6	96.0	50.3

7. Guilford County Public Schools (2012). From mission possible to mission accomplished: an update of progress to date. Greensboro, NC.

APPENDIX F: RETENTION SAVINGS: MISSION POSSIBLE[8]

RETENTION ACTIVITY	AMOUNT
Average GCS teacher salary	$45,054
30% of the average GCS teacher salary*	$13,516
Average number of Mission Possible faculty per year (original program schools)	600
2006-2007 attrition rate	32%
2006-2007 attrition cost (192 positions x $13,516)	$2,595,072
2010-2011 attrition rate	12%
2010-2011 attrition cost (72 positions x $13,516)	$973,152
Return on Investment from attrition reduction each year	$1,621,920

*According to the Department of Labor, the cost of replacing any employee is 30% of their salary.

APPENDIX G: BASIS OF EVALUATION AND BONUSES IN SOUTH CAROLINA TAP SCHOOLS

EDUCATOR	CRITERION 1	CRITERION 2	CRITERION 3
K-8 teacher – tested subject area	40% SKR*	30% class value-added	30% school value-added
K-8 teacher – non-tested subject area or grade	50% SKR		50% school value-added
9-12 teacher – with end-of-course exam	50% SKR		50% HSAP**-first-time and longitudinal, on-time graduation rate
9-12 teacher – no end-of-course exam	50% SKR		50% HSAP-first-time and longitudinal, on-time graduation rate
K-8 principal	25% fidelity of implementation		75% on value-added growth
9-12 principal	25% fidelity of implementation		75% HSAP-first-time and longitudinal, on-time graduation rate

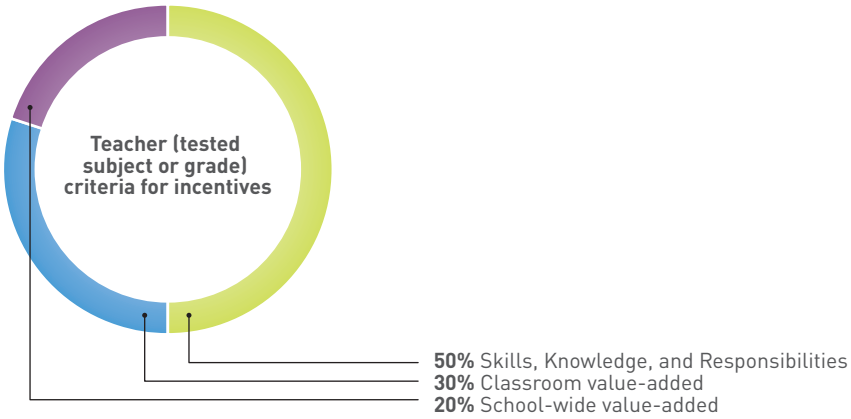
*SKR: Skills, Knowledge and Responsibilities measured through classroom observations

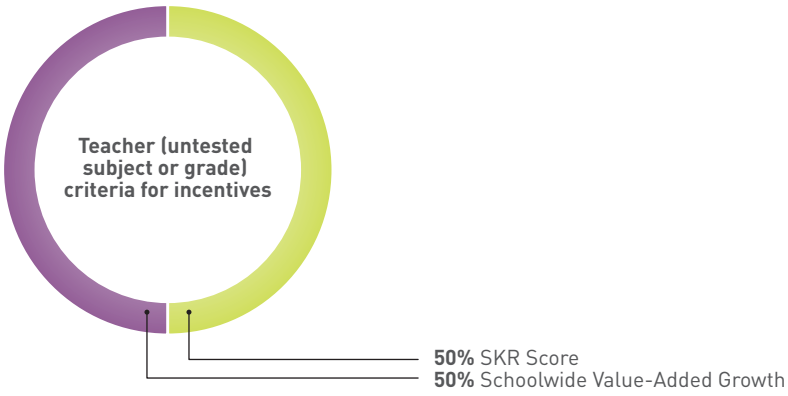
**HSAP: High School Assessment Program

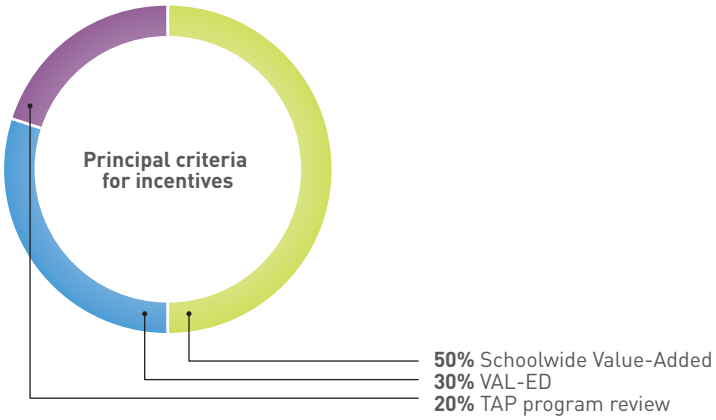
Measures of teacher impact on student learning vary between schools and teachers. For all the TAP sites, teachers are evaluated four to six times per year by three different evaluators who have gone through eight days of training in the use of the same evaluation tool, culminating in a Skills, Knowledge, and Responsibilities (SKR) score. The training of the evaluators creates a high degree of inter-rater reliability, and the SKR score accounts for 50% of a teacher's evaluation. If teachers are in a grade level with state assessment, 30% of their evaluations and subsequent bonuses are based on their classes' growth on those assessments and 20% is based on school-wide growth. If teachers are in an untested grade level or subject area, 50% of their bonuses are based on school-wide value-added growth. At the high school level in South Carolina, bonuses are based on end-of-course exams, first-time passage rate of the High School Assessment Program (HSAP), the longitudinal passage rate of the HSAP, and the high schools on-time graduation rate. SCTAP Principals receive 25% of their bonuses on value-added growth measured in multiple ways as described above and 75% based on the quality of TAP implementation in their schools.

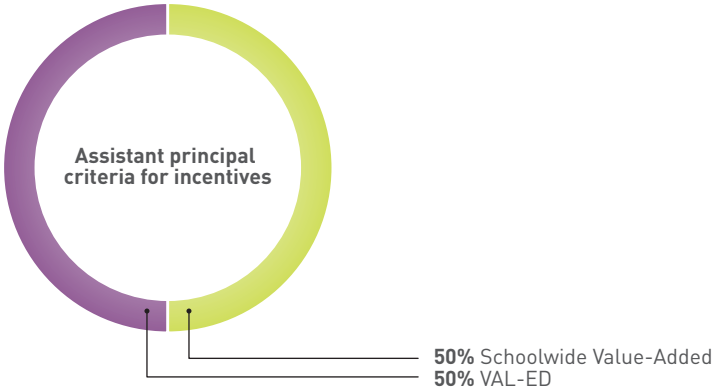
8. Guilford County Public Schools (2012). From mission possible to mission accomplished: an update of progress to date. Greensboro, NC.

APPENDIX H: EVALUATION AND PERFORMANCE COMPENSATION IN LOUISIANA TAP SCHOOLS









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