

# **TAP Research Summary**

Examining the Evidence for the Impact of TAP: The System for Teacher and Student Advancement

June 2015

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Researchers at the National Institute for Excellence in Teaching (NIET) and elsewhere have studied the effectiveness of TAP: The System for Teacher and Student Advancement in raising student achievement, improving the quality of instruction, and increasing the ability of high-need schools to recruit, retain, and support effective teachers. This document describes some of the most recent results that have emerged from the research on the TAP System to date. Data collection and analysis efforts are ongoing, and the findings described here will be updated periodically as information becomes available.

# **NIET Mission**

Recognizing that an effective teacher is the most important school-based factor impacting student achievement, NIET is committed to ensuring a highly skilled, strongly motivated, and competitively compensated teacher for every classroom in America. NIET supports states, districts and schools in recruiting, developing, supporting, and retaining high-quality human capital in order to raise achievement levels for all students. NIET seeks to accomplish this commitment through two signature initiatives TAP™: The System for Teacher and Student Advancement and the NIET Best Practices Center.

# **TAP: The System for Teacher and Student Advancement Description**

Introduced in 1999, the TAP System has become America's leading comprehensive educator effectiveness model that offers powerful career advancement and leadership opportunities for educators, a fair and transparent evaluation process that is linked to job-embedded professional development, and performance-based compensation. Each of these core elements is discussed below. For more information, visit <a href="https://www.niet.org/tap-system">www.niet.org/tap-system</a>.

- Multiple career paths. In TAP schools, skilled teachers have the opportunity to serve as master and
  mentor teachers, receiving additional compensation for providing high levels of support to career
  teachers and increasing instructional effectiveness across the faculty. Master and mentor teachers
  form a leadership team, along with administrators, to deliver school-based professional support and
  conduct evaluations with a high level of expertise.
- Ongoing applied professional growth. Led by master and mentor teachers, TAP teachers participate
  in weekly cluster group meetings where they examine student data, engage in collaborative
  planning, and learn instructional strategies that have been field-tested in their own schools.
  Teachers benefit from a national TAP database of instructional strategies and their colleagues'
  experiences. Professional development continues in the classroom as master teachers model
  lessons, observe classroom instruction, and support teachers' pedagogical improvement.
- Instructionally focused accountability. TAP teachers are observed in classroom instruction several
  times a year by multiple trained observers, including principals and master and mentor teachers,
  using rubrics for several dimensions of instructional effectiveness. Evaluators are trained and
  certified, and leadership teams monitor the reliability and consistency of evaluations in their
  schools. These classroom evaluations are complemented by analyzing student achievement growth,
  rounding out a multi-measure system of teacher evaluation. Evaluation results are used as formative
  feedback in one-on-one mentoring sessions and guide planning for cluster group meetings.
- <u>Performance-based compensation</u>. TAP teachers have the opportunity to earn annual bonuses based on their observed skills, knowledge and responsibilities, their students' average achievement growth, and school-wide achievement growth. Master and mentor teachers receive additional

compensation based on their added roles and responsibilities, and principals can earn additional compensation based on school-wide achievement growth and other measures of effectiveness.

# **Best Practices Center Description**

The NIET Best Practices Center (BPC) provides innovative services, support, and solutions to schools, districts, and states to improve educator effectiveness. Based on more than a decade of experience in schools across the country, the BPC works with its partners to redesign educator evaluation, deliver effective professional development, implement performance-based compensation systems, and train teacher leaders in schools. The BPC offers a network of expert trainers and access to a range of innovative Web-based resources and tools to support individual initiatives and goals. For more information, visit www.niet.org/best-practices-center.

## **TAP Influence in Schools**

Since its inception in 1999, the TAP System of comprehensive educator effectiveness has operated across multiple states in hundreds of schools. TAP has grown steadily in the number of schools participating, with over 90% identified as high-need. In addition to schools and districts implementing the full TAP System, a number of states, districts, and schools are using TAP System materials and practices—in particular, the online portal which houses hundreds of hours of effective teaching across subjects and grade levels, the TAP teacher observational rubric, and the certification and recertification process for educator evaluators. As of the 2014-15 school year, NIET initiatives are impacting over 200,000 educators and more than 2.5 million students, approximately 5% of the American public school student population.

# **TAP Impact in Schools and Districts**

A notable success of the TAP System is the expanding preponderance of performance data that comes from examining the impact of the system across multiple locations and conducted by different researchers using varied methodological frameworks (Algiers Charter School Association, 2011; Barnett, Rinthapol, & Alexander, 2015; Barnett, Rinthapol, & Hudgens, 2014; Buck & Coffelt, 2013; Daley & Kim, 2010; Hudson, 2010; Schacter et al., 2002; Schacter, Thum, Reifsneider, & Schiff, 2004; Schacter & Thum, 2005; Solmon, White, Cohen, & Woo, 2007). The next section discusses several of these studies demonstrating the impact of the TAP System. Following this general review, three new reports and the results from the 2014 TAP Teacher and Administrator Attitude Survey are presented.

# **Instructional Measurement That Leads to Improved Practice**

To improve the quality of classroom instruction, the quality of each teacher's instruction must be assessed. Traditional school systems have not been successful at measuring and assessing classroom instruction. The New Teacher Project (TNTP) published a revealing report in 2009 showing that schools fail to evaluate their teachers in any meaningful way (Weisberg, Sexton, Mulhern, & Keeling, 2009). As TNTP reported, most teachers were rated at the very highest levels (replicated as Figure 1 below), despite the fact that most schools were not performing at these highest levels on achievement indicators.

A 2014 report from the National Council on Teacher Quality (NCTQ) indicated that while improvements in educator evaluation have occurred since the 2009 report, still many of the same problems persist.

Given that differences in teacher effectiveness represent the single most important school-related factor affecting student learning, accurately measuring differences in teacher performance is critical to the improvement of teaching and learning.

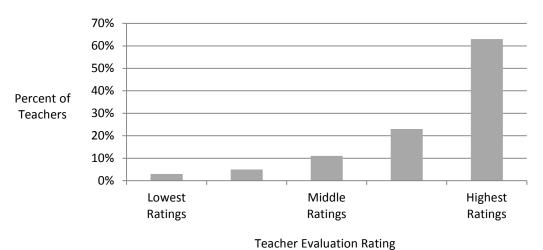
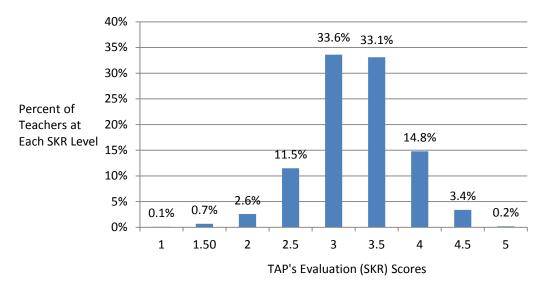


Figure 1: Traditional teacher evaluation scores.1

In contrast to traditional evaluation methods noted above in Figure 1, the TAP System has developed a comprehensive approach to teacher evaluation and incentives that depends on multiple measures of both teaching practice and teaching outcomes. This system provides differentiated feedback for teacher improvement, in contrast to the often found inflated ratings found in evaluation systems (see Figure 2).

<sup>&</sup>lt;sup>1</sup> Teacher evaluations in five urban school districts, based on data taken from <a href="http://widgeteffect.org/downloads/TheWidgetEffect.pdf">http://widgeteffect.org/downloads/TheWidgetEffect.pdf</a>. Scores on 3-point and 4-point scales have been interpolated to a 5-point scale using a cumulative probability density function based on reported data.



Note: Teacher Skills, Knowledge, and Responsibilities distribution of TAP evaluations using 1-5 scale in half-point increments. Figure based on 13,891 teachers and approximately 55,564 observations, 2013-14.

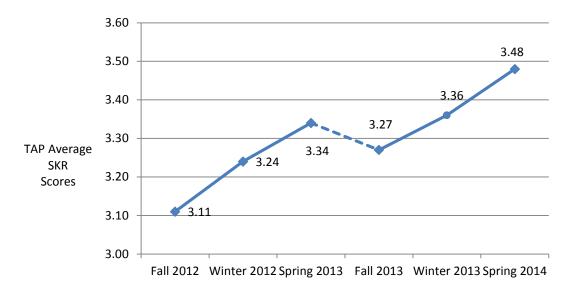
Figure 2: Observational ratings of teachers in TAP schools.

The above ratings are based only on the classroom evaluation component of the TAP System, before considering student learning growth measures. Teachers are observed several times a year by multiple trained and certified raters who consider 19 areas of effective instructional practice. These observers use a multi-dimensional, research-based set of standards and rubrics that are fair, transparent, and curriculum-independent. Results are provided immediately as feedback to the teacher in post-observation mentoring sessions. The scores from all observations of these 19 classroom indicators are combined with seven responsibility indicators at the end of the school year to create an overall Skills, Knowledge, and Responsibilities (SKR) score for each teacher. On a scale of 1.0 to 5.0, 1 represents unsatisfactory performance on a certain standard, 3 represents proficiency on that standard, and 5 represents exemplary performance on that standard. Teachers earn scores in increments of 0.5.

#### **TAP Teachers Demonstrate Consistent Improvement across Time**

TAP results show a steady improvement in observed skills during the course of the school year. Figure 3 shows recent improvement for teachers in TAP nationally. This shows the improvement in instructional quality scores over a two-year period. In the data shown, despite a slight dip over the summer, teachers demonstrated an overall path of improvement that continued over both years. This graph is based on a sample including all TAP schools during the years 2012-2014.

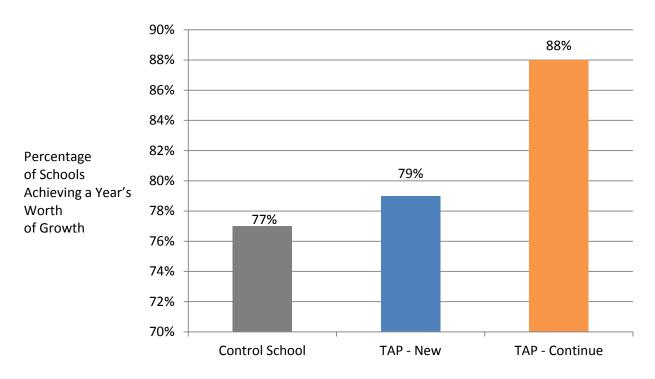
We tracked a cohort of 5,469 teachers through observations grouped into six periods in fall, winter and spring of the 2012-2013 and 2013-2014 school years. The cohort was composed of teachers working in TAP schools both years, with observations in each of the observation periods. Teachers present in only one school year or who lacked an observation in one of the quarters were excluded from the sample. Including teachers present in only some of the periods would have complicated efforts to compare the level of instructional quality at different time points, since each average could reflect substantially different groups of teachers.



TIme Period of Observation

Figure 3: Teacher instructional improvement across time.

Within the TAP System, improvements to teacher instructional practices translate into gains in student achievement. More importantly, these improvements increase over time.



Note: Figure created with raw school-level, composite math and reading score data provided by SAS® for control (n=3,870) and TAP schools (n=353).

Figure 4: Student achievement growth by TAP System status

With student achievement gains and high performance scores on the teacher observation rubric, thus demonstrating increases in effectiveness, teachers are able to earn performance-based compensation. To represent this impact, Figure 4 shows how the salary of an effective teacher (defined as obtaining one year or more of student achievement growth and/or being rated as proficient on the TAP observation rubric, a top 10% effective teacher, and a TAP mentor and master teacher compares to all other teachers.

As demonstrated by the left side of the graph, teachers in schools with no additional financial awards for improving the performance of students or improving their own practice as demonstrated by high scores on a teacher observation rubric would receive the same salary (reflected on Figure 5 as the average teacher's salary nationally). However, on the right side of the graph, we see that in the TAP schools effective teachers can earn an average bonus of approximately \$2,250 (4% of their annual salary), while teachers performing in the top 10% (those growing their students' performance by significantly more than one year's growth and demonstrating exemplary classroom practices) earn an average bonus of approximately \$3,750 (7% of their annual salary). Further, in TAP schools, the multiple career paths allow for master and mentor teachers to earn approximately \$10,000 (18% of their annual salary) through their performance bonus and salary augmentation for increased responsibilities.

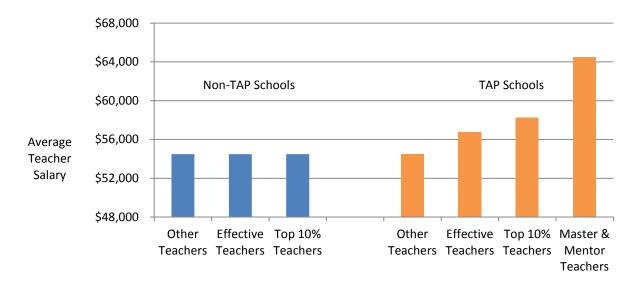


Figure 5: Teacher salary impacts based on demonstrated effectiveness.<sup>2</sup>

# **Results from Prior Selected Studies of TAP's Impact**

Mann, Leutscher, and Reardon (2013) examined the impact of the TAP System across fifteen schools in Louisiana. In order to determine impact, a one-to-one nearest-neighbor matching algorithm with replacements was created to find a comparison school for each TAP school. Based on the propensity scores computed using the selection model, the algorithm chooses the non-TAP school with the propensity score closest to the propensity score of the TAP school. There was no significant difference between the TAP schools and their matched comparison

<sup>&</sup>lt;sup>2</sup> Average teacher salary based on reported national average from the Bureau of Labor Statistics, 2012 http://www.bls.gov/ooh/education-training-and-library/home.htm

schools in the pretreatment year, t(26) = 0.080, p > 0.05. However, results of the study indicate that in the four primary subjects assessed, there was a significant effect in favor of the TAP schools for ELA: F(1, 6421) = 6.334, p = 0.012; Mathematics: F(1, 6421) = 86.386, p = 0.000; Science: F(1, 7084) = 31.792, p = 0.000; and Social Studies: F(1, 7085) = 87.411, p = 0.000]. Further, the study examined the impact of the TAP System across time to find that the TAP schools significantly outperform comparison schools, F(1, 24) = 5.30, p = 0.031. The study also found that 92% of teachers reported that the TAP System made a positive difference on student achievement in their school and 91% reported that the AYP status was improved as a result of the TAP System.

- In 2010, Hudson examined the effect of the TAP System on student achievement across 151 schools in 11 states. Hudson used a statistical control matching method to ensure that the TAP schools and the comparison schools were equivalent prior to the intervention being implemented. Hudson also used a differences-in-differences approach to further account for any differences between the groups and to ensure that the evaluation was able to isolate the impact of the program. Results of the study indicate that students in TAP schools outperformed students in comparison schools by approximately 0.15 standard deviations in mathematics, and smaller effects but in favor of the TAP schools in reading. Hudson explains these findings in context to other education interventions by noting that "the estimated effect of TAP on mathematics achievement is more than twice as large [as class size reduction effects]" (p. 28).
- In 2007, Solmon et al. analyzed the impacts of the TAP System in terms of value-added gain scores across 650 classrooms in six states, including 61 TAP schools and 285 control schools. Researchers analyzed the student achievement gains at two levels of comparison—teacher-to-teacher and school-to-school. To evaluate TAP teachers (and similarly in evaluating TAP schools), researchers calculated the effect of each teacher on student progress as assessed by the difference between the actual average scores of the teacher's students and the expected average scores of those students (as derived from previous scores). Through this process, researchers created a statistical control group for the TAP teachers based on performance. Results of the study indicate that in every state more TAP teachers demonstrated statistically significant at or above average amount of student achievement growth than control group teachers. Further, TAP schools outperformed their controls in 57% of the categories in math and in 67% of the categories in reading.
- In their 2002 study, Shacter et al., analyzed the growth in achievement of students (n=3,319) whose schools implemented the TAP System compared to the growth of achievement of students (n=7,055) from matched comparison schools. The schools were matched on achievement (percentile rank in reading, mathematics, and language), school size, percent of students eligible for free lunch, school configuration, and location. A statewide cluster analysis was conducted to match the schools. Beyond the matched comparisons, the results in achievement were based on a multi-level value-added model utilizing prior test scores as covariates. Results of the analysis revealed that TAP schools made significantly higher improvements in student achievement gains. Further, this study found that those schools that implemented the TAP System with higher fidelity more significantly outperformed comparison schools.
- In their 2004 follow-up study, Schacter et al. examined the impact of the TAP System across 11 schools. The same cluster level analysis with multi-level multivariate analyses were employed

using all available covariates to compare growth between the TAP and control schools. Results from the study indicate that 65% of the TAP schools outperformed their matched controls in reading, language, and mathematics achievement, with the magnitude of change ranging from 6% to 46%. The teacher satisfaction component of this study indicated strong support for the four core principles of the TAP System.

Following a consistent pattern of multiple researchers investigating TAP in different locations using varied methodological approaches, three new reports are highlighted and summarized below demonstrating TAP's consistently positive impact on schools, teachers, and student achievement.

#### **New TAP Studies**

# **Evaluation of TAP System across Louisiana**

A study released in fall 2014 (Barnett, Wills, & Kirby, 2014) evaluated the impact of the TAP System across 66 schools in Louisiana. The study, *Comprehensive Educator Effectiveness Models that Work: Impact of TAP: The System on Student Achievement in Louisiana*, was conducted by researchers within NIET and a third-party external evaluator, Dr. Peggy Kirby, president of ed-cet, inc., a firm specializing in education program evaluation. The study of schools from across Louisiana included elementary, middle, and high schools in urban, suburban, and rural communities. The study examined the impact of the TAP System on student achievement using two rigorous analytic strategies.

First, the authors employed a linear regression to compare 2012-13 Assessment Index (AI) performance of the 66 TAP schools and non-TAP schools statewide, controlling for prior (2010-11) achievement, percentage of students receiving free or reduced-price lunch, school configuration, school size (number of students), and percentage of English language learners.

Second, the authors compared the TAP schools with a propensity score matched group of non-TAP schools. The authors matched on baseline (2010-11) student achievement, school configuration (grades taught), percentage of students receiving free or reduced-price lunch, and school size (number of students). The matched groups were compared on 2012-13 K-8 AI as the dependent variable.

To answer the first question (Do students in TAP schools outperform students in similar schools statewide?) student performance was examined alongside a statewide group of comparison schools. Regression coefficients for all covariates were significant at p < .05 (n = 1003 schools with all covariate information), as shown in Table 1. Controlling for the covariates, implementation of the TAP System showed a significant positive effect on 2012-13 achievement: the 66 TAP schools scored 3.7 points higher on average than non-TAP schools (p < .01).

Table 1: Coefficient Estimates for Regression with 2012-13 Louisiana Assessment Index

	Estimate	Standard error	t	р
Intercept	19.252	3.558	5.41	.000***
2010-11 AI	0.786	0.022	36.16	.000***
% FRL	-0.183	0.022	-8.27	.000***
School configuration				
(baseline is elementary):				
Middle/junior high school	-1.669	0.786	-2.12	.034*

High school	-4.009	0.984	-4.07	.000***
School size	-0.003	0.001	-2.37	.018*
% LEP	0.334	0.076	4.41	.000***
TAP school	3.699	1.221	3.03	.003**

<sup>\*</sup> *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001.

For the second research question, the authors selected one propensity score matched control for each of the 66 TAP schools. The covariates in this model were 2010-11 AI, school configuration, percentage of students receiving free or reduced-price lunch, and school size (number of students). To verify the quality of matching, the authors assessed the standardized differences in means of the covariates between the TAP schools and the matches; all differences were well below the maximum acceptable value of 0.25 (Stuart, 2010). Like the TAP schools, the matched group consisted of 47 elementary schools, 15 middle schools, and 4 combination schools that serve students in the K-8 range.

The average 2012-13 AI for TAP schools (64.45) was 5.47 points greater than the average for the matched controls (58.98). To illustrate the gain in score for the TAP schools, Figure 6 shows the equivalent starting point for both TAP and control schools as a function of the maximum score on the 2010-11 AI (maximum of 200) and the change in score relative to the maximum score on the 2012-13 AI (maximum of 150). The score comparison indicates the TAP schools made larger gains in student achievement than matched comparison schools.

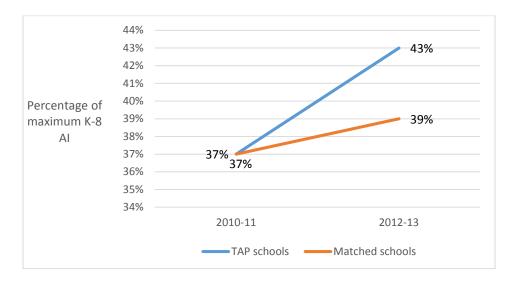


Figure 6: 2012-13 K-8 Assessment Index averages

Read the full Louisiana Impact report at <a href="http://www.niet.org/assets/Publications/louisiana-tap-student-achievement.pdf">http://www.niet.org/assets/Publications/louisiana-tap-student-achievement.pdf</a>.

#### **TAP's Effect on Teacher Retention**

Counter to the national trends that show greater teacher attrition levels in high-need schools, a study from NIET finds that campuses implementing TAP: The System for Teacher and Student Advancement are keeping effective teachers at a higher rate than similar high-need schools and the national average overall (Barnett & Hudgens, 2014).

The TAP System retains teachers by creating teacher leaders; instituting high-quality and relevant professional development; building a structure for educator observation that supports faculty members through a trajectory of continual improvement; and offering opportunities for pay based on educators' roles and responsibilities, their accomplishments in the classroom, and the learning growth of their students. Specifically, the study—Staying Power: The Impact of the TAP System on Retaining Teachers Nationwide—reports that these methods have helped TAP schools retain approximately 14% more teachers than similar high-need schools and 10% more than the national average (Figure 7).

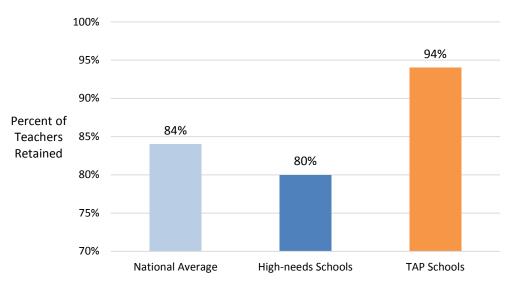


Figure 7: Retention rates in TAP schools relative to national average and high-need schools.

The study also examines the characteristics of different groups of teachers in TAP schools. The results of these analyses demonstrate that TAP teachers continue to improve while working in TAP schools. Specifically, the teachers in the TAP schools demonstrate growth in their instructional ability (TAP schools refer to this as Skills, Knowledge and Responsibilities or SKR scores). For stayers, SKR scores increased from 2010-11 (M = 3.32; SD = 0.54) to 2011-12 (M = 3.44; SD = 0.51), t(2761) = 14.42, p = .00, d = 0.23. Additionally, SKR scores increased from 2011-12 (M = 3.25; SD = 0.50) to 2012-13 (M = 3.39; SD = 0.51), t(6412) = 28.84, p = .00, d = 0.28.

More importantly, this growth in instructional ability also occurred while student performance scores demonstrated growth, as measured by the gain in the classroom value-added scores from 2011-12 (M = 3.19, SD = 1.16) to 2012-13 (M = 3.25; SD = 1.13), t(1604) = 2.03, p = .04, d = 0.05.

To put these findings into perspective, across the eight comparisons—two groups, two outcome measures, two change years—TAP schools resulted in higher mean scores in seven of the eight comparisons. In all four comparisons of teacher instructional ability, the TAP teachers demonstrated significant increases (p < 0.05). Further, in three of the four classroom value-added comparisons, the TAP schools also showed increases. This result indicates the TAP teachers remaining in TAP schools were more effective each year.

To also understand the degree of impact in retaining teachers, beyond a 14% comparative advantage, the effect size calculations provide further insight. The average effect size across the comparisons is d = 0.26. This finding shows that the effect of the TAP System on retaining teachers is approximately equal to the effect size of reducing class sizes by one-third on student achievement (Coe, 2002). While these

are different outcome measures, they provide some relativity to showcase how substantial the effect of the TAP System is on keeping teachers in schools.

To further explore the net effect of retaining teachers, and as demonstrated, more effective teachers, we examined the ongoing conversation about the costs of educator attrition for schools, teachers, students, and communities. Given the discrepancy in costs (ranging from \$5,000 to 200% of the departing teacher's salary), a conservative estimate of teacher attrition may be defined at \$8,500 per teacher (see ACORN, 2004; Barnes, Crowe, & Schaefer, 2007; Simon & Johnson, 2013; Texas Center for Educational Research, 2000).

To illustrate this impact, consider a representative elementary school with 40 teachers and a 20% attrition rate. In this school, eight teachers would depart the typical school each year. In a TAP System representative elementary school with 40 teachers, two teachers (6% attrition) would depart each year. The cost of attrition difference between these two schools on a conservative estimate would be \$50,000<sup>3</sup>. Using higher estimates of attrition and larger schools, one can quickly glean the impact of the TAP System retention rate on the overall budget of a school when examining solely the attrition aspect. Non-pecuniary benefits (i.e. collegiality, morale, teacher satisfaction) would be expected to increase as a result of lower attrition as well.

Read the full retention report at <a href="http://www.niet.org/assets/Publications/staying-power-tap-system-teacher-retention.pdf">http://www.niet.org/assets/Publications/staying-power-tap-system-teacher-retention.pdf</a>.

# **TAP High School Summit**

Educators were drawn from TAP partnering high schools across the nation, including administrators and teachers from traditional public and charter schools, representing education agencies at the school, district, and state levels. The purpose of this meeting was to collect information from educators with regard to implementing the TAP System at the high school level, specifically focusing on "what makes the high school implementation different/unique." Dozens of insights and solutions were discussed. The participants organized their insights around three key areas—cluster, field testing, and follow-up—and shared their experience in how the TAP System effectively impacts their high schools (see Figure 8 for list of topics).

<sup>&</sup>lt;sup>3</sup> This example uses a conservative estimate in a representative non-TAP and TAP school, each comprised of 40 teachers. In the non-TAP school, 8 teachers would leave each year (20% loss). In the TAP school, 2 teachers would leave each year (6% loss). The conservative estimate for each teacher lost is \$8,500. Therefore, the net loss of 6 teachers at the non-TAP school results in a cost of \$50,000.

#### Cluster at the Field Testing at the Follow-Up at the **High School Level High School Level High School Level Cluster Configuration** Identifying What to Field Test Time and Scheduling Shift from Content-Only Focus to **Determining Benchmarks** Pedagogy Focus on Pedagogy over Content Transfer from Cluster to Differentiation across Content Classroom and Grade Level **Determining Which Student** Using Student Work to Drive **Perception of Colleagues** Work to Analyze Field Testing

Figure 8: Key topics discussed at the High School Summit.

Read a summary of the discussion and solutions from the High School Summit report at http://www.niet.org/assets/Publications/tap-high-school-symposium.pdf

# National TAP Attitude Surveys - 2014

# **Teacher Results - 2014 TAP Attitude Survey**

Critics of performance incentives for teachers claim that they will result in competitiveness and a loss of collegiality among teachers. Notwithstanding, we find evidence of a high degree of collegiality in TAP schools. In the 2014 TAP national survey of teacher attitudes, 93% of teachers in TAP schools agree with statements reporting a high level of collegiality in their schools, and approximately 70% report strong agreement. This evidence for collegiality has been remarkably high over the last decade, as shown in Figure 9<sup>4</sup>, which indicates that TAP schools consistently have a collaborative and collegial environment.

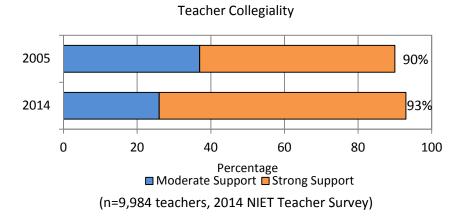


Figure 9: Level of reported collegiality from teachers in TAP schools nationwide.

<sup>&</sup>lt;sup>4</sup> The five dimensions represented in this and the next figures are constructed from multiple teacher survey items using factor analysis. Most items in the survey are based on a 5-point Likert scale indicating agreement (1=Not at All and 5=Very Much). For reporting purposes on collegiality and the four TAP elements, the results are presented as Moderate (weighted average of 3 on the items for that factor) and Strong (weighted average of 4 or 5 on the items for that factor).

Beyond the overall high levels of reported collegiality within TAP schools, the levels of support for the specific elements of TAP including *multiple career paths, ongoing applied professional growth, instructionally focused accountability* and *performance-based compensation* are also high and growing, as shown in Figures 10-13.

A growing number of teachers report that the creation of teacher leader roles in their school has a positive impact on student achievement and school goals. Teacher leaders and administrators form a leadership team that articulates school goals and supports each teacher in developing and achieving their own instructional goals based on their skills and their students' needs. Teacher leadership roles also provide a pathway for teachers to make a greater contribution to the instructional excellence of a school without leaving the classroom.

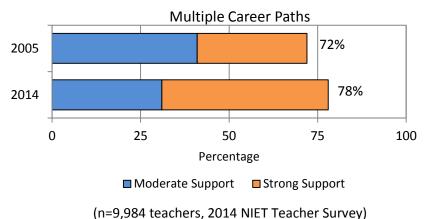
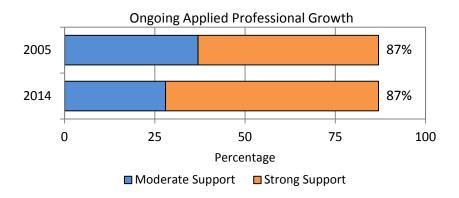


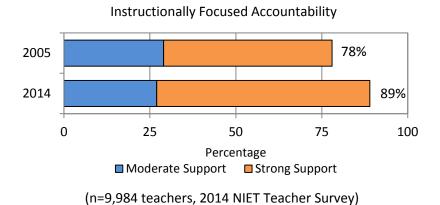
Figure 10: Level of reported support for multiple career paths from teachers nationwide.

In TAP schools, master and mentor teachers lead weekly cluster group meetings where they examine student data, engage in collaborative planning, and discuss instructional strategies that have been field-tested in their own schools. Teachers benefit from access to a national TAP database of instructional strategies and their colleagues' experiences. Professional development continues in the classroom as master teachers model lessons, observe classroom instruction and support teachers' pedagogical improvement. Figure 11 demonstrates the increasing strong level of support for the professional growth that occurs in TAP schools, and further shows the sustained high level of overall support.



# Figure 11: Level of reported support for applied professional growth from teachers nationwide.

TAP teachers are observed in classroom instruction multiple times a year by multiple trained observers, including principals and master and mentor teachers, using rubrics measuring indicators of instructional effectiveness. Evaluators are trained and certified, and leadership teams monitor the reliability and consistency of evaluations in their schools. These classroom evaluations are complemented by analyzing student achievement growth, rounding out a multi-measure system of teacher evaluation. Evaluation results are used as formative feedback in one-on-one mentoring sessions, and guide planning for cluster group meetings. Figure 12 illustrates the strong level of support for the instructionally focused accountability reported by TAP teachers across the nation.



re 12: Level of reported support for instructionally focused accountability from t

TAP teachers have the opportunity to earn annual bonuses based on their observed skills, knowledge and responsibilities, their students' average achievement growth, and school-wide achievement growth. Master and mentor teachers receive additional compensation based on their added roles and responsibilities, and principals can earn additional compensation based on school-wide achievement growth and other measures of effectiveness. Figure 13 demonstrates the level of support for the performance-based compensation system from TAP teachers. Levels of support for performance-based

compensation in TAP schools has increased significantly over time, from 49% in 2005 to 76% in 2014.

# Performance-Based Compensation 2005 2014 49% 0 25 50 75 100 Percentage

(n=9,984 teachers, 2014 NIET Teacher Survey)

■ Moderate Support ■ Strong Support

Figure 13: Level of reported support for performance-based compensation from teachers nationwide.

# **Principal Results - 2014 TAP Attitude Survey**

The above substantially positive results from the TAP teacher survey are echoed by the 2014 TAP Principal Survey. As shown in Figure 14, principals have overwhelmingly reported that TAP has a positive effect on collegiality, instructional practices, and teacher effectiveness. Virtually all principals reported TAP's professional growth activities increased teacher instructional practices. Further, as noted on Figure 15, a significant majority of principals (86%) agree that the TAP System helps retain effective teachers.

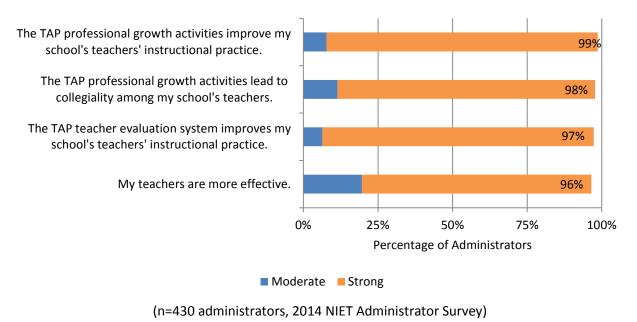
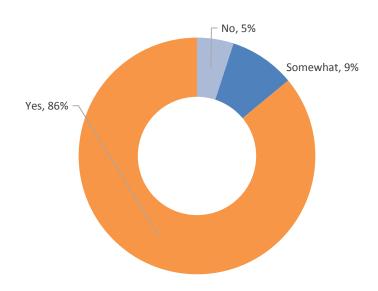


Figure 14: Principal survey results on TAP outcomes in their schools.



(n=430 administrators, 2014 NIET Administrator Survey)

Figure 15: "The implementation of TAP has helped retain effective teachers at my school."

# **Upcoming Projects**

# **Teacher and Administrator Attitude Survey**

The annual TAP Teacher and Administrator Attitude Survey measures the impact of TAP on teacher attitudes and job satisfaction. The survey contains questions that assess the perceptions of the implementation of TAP at the school and teachers' and administrators' overall job satisfaction. NIET asked approximately 14,000 teachers and 1,000 administrators within TAP schools across 11 states (i.e. AR, AZ, CA, CO, IA, IN, LA, MN, SC,TN, and TX) to complete the survey. The preceding results provide a glimpse into those responses aggregated across all respondents and comparing an early adoption year (2005) to the current year (2015). The next step in this analysis is to examine the changes across time and within each location, as well as examine additional questions reported throughout the survey, including the qualitative data and open-ended responses.

# Measurement Stability of TAP Rubric and Alignment with Value Added

We are investigating multiple approaches to the stability of TAP observational rubric scores. One metric is the correlation between scores obtained from the same subjects at different time points. The correlations between average SKR scores in the 2010-11, 2011-12, and 2012-13 school years were highly significant and large, approaching 0.7 for consecutive school years. Another metric we investigated was the distribution of maximum year-to-year score changes. For more than 90% of teachers, scores either did not change over the period, or changed by 0.5. Score changes were within 1.0 for nearly 99% of teachers. Overall, the preliminary evidence—high year-to-year correlations, generally small year-to-year score changes, and a large proportion of score patterns consistent with improvement—is consistent with an instrument that generates stable scores while providing teachers with actionable feedback that guides them in improving their practice.

In addition, we are examining the relationship between TAP rubric scores and the classroom value-added component of teacher evaluation. The correlation of TAP SKR scores with classroom value-added exceeds all correlations between observational and classroom value-added measures reported in the literature to date (with the exception of one reported correlation with an equal value). This is encouraging evidence that the TAP observation rubric measures aspects of teacher practice that contribute to improved student test performance.

#### **Career Ladders in Knox County, TN, TAP Schools**

NIET received a federal Teacher Incentive Fund grant (TIF3) in 2010 to expand TAP System implementation in Knox County, TN, schools. With assistance from NIET, a third-party external evaluator is examining the career trajectories of former TAP mentor and master teachers who have transitioned into administrative leadership positions. Through the use of interview, survey, and focus group data, the authors explore structures within TAP that promote teacher leadership and prepare administrators to be effective instructional leaders.

# **Conclusion**

The TAP System stands out because of its more than a decade-long track record of growth and success in raising student achievement in high-need schools. The research evidence also reveals several key reasons for TAP's positive impact: an evaluation system capable of differentiating teacher performance levels and providing detailed feedback for improvement, ongoing professional growth in classroom practice using student and teacher data to guide improvement, recruitment and retention of effective teachers, and the creation of a challenging, rewarding, and collegial environment focused on high-quality instruction and student learning.

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## References

- Algiers Charter School Association. (2011). Annual report 2011. Retrieved from http://www.niet.org/assets/Publications/algiers-charter-school-association-annual-report-2011.pdf
- Association of Community Organizations for Reform Now [ACORN]. (2004). Where have all the teachers gone? The costs of teacher turnover in ACORN neighborhood schools in Chicago. Retrieved from www.acorn.org/index.php?id=315
- Barnes, G., Crowe, E., & Schaefer, B. (2007). The cost of teacher turnover in five school districts: A pilot study. Washington, DC: National Commission on Teaching and America's Future. Retrieved from http://www.eric.ed.gov/PDFS/ED497176.pdf
- Barnett, J. H., & Hudgens, T. (2014). Staying power: The impact of the TAP System on retaining teachers nationwide. Santa Monica, CA: National Institute for Excellence in Teaching. Retrieved from http://www.niet.org/assets/Publications/staying-power-tap-system-teacher-retention.pdf
- Barnett, J. H., Rinthapol, N., & Alexander, J. (2015). Real perspectives on tough issues: Teacher attitudes about teaching. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.
- Barnett, J. H., Rinthapol, N., & Hudgens, T. (2014). TAP research summary: Examining the evidence and impact of TAP: The System for Teacher and Student Achievement. Santa Monica, CA: National Institute for Excellence in Teaching.
- Barnett, J. H., Wills, K. C., & Kirby, P. C. (2014). Comprehensive educator effectiveness models that work: Impact of the TAP System on student achievement in Louisiana. Santa Monica, CA: National Institute for Excellence in Teaching. Retrieved from http://www.niet.org/assets/Publications/louisiana-tap-student-achievement.pdf
- Buck, B., & Coffelt, C. (2013). Leadership program good for all teachers: TAP leaders provide support for colleagues, create collaborative team. *Des Moines Register*.
- Coe, R. (2002). It's the effect size, stupid: What effect size is and why it is important. Presented at the British Educational Research Association annual conference.
- Daley, G., & Kim, L. (2010). A teacher evaluation system that works. Santa Monica, CA: National Institute for Excellence in Teaching. Retrieved from http://www.niet.org/assets/Publications/teacher-evaluation-system-that-works.pdf
- Hudson, S. (2010). The effects of performance-based teacher pay on student achievement. Stanford, CA: Stanford Institute for Economic Policy Research. Retrieved from http://siepr.stanford.edu/publicationsprofile/2175.
- Mann, D., Leutscher, T., & Reardon, R. M. (2013). The system for teacher and student advancement: An evaluation of achievement and engagement in Louisiana. Santa Monica, CA: National Institute

- Schacter, J., Schiff, T., Thum, Y. M., Fagnano, C., Bendotti, M., Solmon, L., ... Milken, L. (2002). The impact of the teacher advancement program on student achievement, teacher attitudes, and job satisfaction. Santa Monica, CA: Milken Family Foundation. Retrieved from http://www.niet.org/assets/Publications/impact-tap-system-student-achievement-teacherattitudes-job-satisfaction.pdf
- Schacter, J., Thum, Y. M., Reifsneider, D., & Schiff, T. (2004). The teacher advancement program report two: Year three results from Arizona and year one results from South Carolina TAP schools.

  Santa Monica, CA: Milken Family foundation. Retrieved from http://www.niet.org/assets/Publications/preliminary-tap-system-results-arizona-south-carolina.pdf
- Schacter, J., & Thum, Y. M. (2005). TAPping into high quality teachers: Preliminary results from the Teacher Advancement Program comprehensive school reform. *School Effectiveness & School Improvement*, *16*(3), 327–353
- Simon, N. S., & Moore Johnson, S. (2013). Teacher turnover in high-poverty schools: What we know and can do. Working Paper: Project on the Next Generation of Teachers. Cambridge, MA: Harvard Graduate School of Education.
- Solmon, L. C., White, J. T., Cohen. D., & Woo, D. (2007). The effectiveness of the teacher advancement program. Retrieved from http://www.niet.org/assets/Publications/tap-system-effectiveness.pdf
- Stuart, E. A. (2010). Matching methods for causal inference: A review and a look forward. *Statistical Science 25*(1): 1-21. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943670
- Texas Center for Educational Research. (2000). The cost of teacher turnover. Austin: Texas State Board for Educator Certification. Retrieved from http://www.tasb.org/About-TASB/Related-Sites-and-Affiliated-Entities/TCER-Reports/documents/17\_teacher\_turnover\_full.aspx
- Weisberg, D., Sexton, S., Mulhern, J., Keeling, D. (2009). The Widget Effect: Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness. Brooklyn, NY: The New Teacher Project. Available online at http://widgeteffect.org