Report

Quality Compensation for Teachers Summative Evaluation

Prepared for
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EXECUTIVE SUMMARY

During the summer of 2008, the Minnesota Department of Education contracted with Hezel Associates, LLC, to conduct an external evaluation of the Q Comp implementation. The evaluation team has adopted a formative-summative approach to the investigation of Q Comp impact and sustainability. This approach has allowed us to study how Q Comp works and whether it works as intended and also to determine any preliminary impact that Q Comp has had on outcomes at various levels (e.g., district, school, teacher, student) while implementation occurs. This final evaluation report describes the research activities undertaken to date; findings, commendations and recommendations that have resulted from our research; and suggestions for further research in the future.

Hezel Associates' framework for the evaluation of Q Comp was designed to determine whether the system is understandable, fair and credible, appropriately linked to desired behaviors and improved student performance and an efficient investment of resources. To do this, the Hezel team has considered each of Q Comp's components individually as well as in concert with one another: career ladder/advancement options, job-embedded professional development, teacher evaluation, performance pay, and alternative salary schedule.

A key component of the evaluation is assuring that we have sought multiple types of data from multiple sources. Our methods and findings sections detail these activities and learnings, and sustain our commendations and recommendations for the future of Q Comp. Here, we present the commendations and recommendations for Q Comp that we have been able to cull from our efforts during the fall of 2008 to the winter of 2009, organized by statewide and site-specific aspects of program implementation and impact.

A. COMMENDATIONS

1. Statewide implementation of Q Comp

- The perception of Q Comp's impact on schools has overall been quite positive.
- Teachers, mentors, and coaches share a common view that the financial gains behind Q Comp are not a driving motivator for program participation.
- Minnesota's teachers seem to be more supported in their role of improving students' educational achievement since Q Comp's inception, compared to non-Q Comp teachers, though we cannot link these trends statistically.
- Q Comp emphasizes all teachers growing professionally, which is consistent with MDE's goals for the school improvement process.

- The flexible nature of Q Comp has been helpful to empowering local districts and schools with resources they can use to undergo the school improvement process.

2. Districtwide implementation of Q Comp

- The perception that instructional practices have improved under Q Comp is widespread within Q Comp schools.
- Schools that have implemented Q Comp tend to view the program as an integration of each of the five components, and not simply a performance pay system.
- Onsite and meaningful professional development that is integrated into teachers' schedules under Q Comp facilitates teachers' participation in regular and more substantive, as well as school improvement, activites.
- Teachers are sharing and collaborating around student needs and instructional practices more than they ever have since Q Comp was implemented.
- Participating schools praise Q Comp for providing a unifying focus and framework for collaborating around instruction, planning and professional development.
- Teachers attribute greater consistency in the way that expectations for students are set and in the teaching strategies that are being used to their participation in Q Comp.
- Generally, observations in Q Comp schools are viewed as constructive, whereas in non-Q Comp schools, observations are perceived to be more evaluative.
- In some Q Comp schools, there has been an overall shift from administrative decision making to teacher decision making, which administrators and teachers view favorably.
- Teachers from Q Comp schools are generally familiar with their career ladder systems, or believe this information is widely available and easily accessible.
- When Q Comp is implemented in schools, the following set of conditions best predict student achievement to increase: (1) When school administrators feel that their teachers consider Q Comp to be successful in their school,(2) When teachers feel that someone other than the principal is responsible for conducting Q Comp teacher evaluations/observations, (3) When standards-based lessons are *not* the main topic of professional development activities and discussions, but other topics are addressed, (4) When teachers feel that the addition of multiple career paths in their school will encourage them to remain in the teaching profession longer.
- There is a significant and positive relationship between the number of years a school has been implementing Q Comp and student achievement and the number of years a school is in Q Comp with student academic achievement.

B. RECOMMENDATIONS

1. Statewide implementation of Q Comp

- Target audiences for Q Comp awareness campaigns should include both districts and schools.
  - Strategy: Provide information about the variety of ways that districts and schools have designed programs to meet the requirements of specific elements of Q Comp.
  - Strategy: Better utilize the Q Comp informational conference offered by MDE each January.
  - Strategy: Provide information about what Q Comp does – and does not – involve.
  - Strategy: Encourage districts and schools that are interested in Q Comp participation to speak with or observe a school site that is already successfully participating.
  - Strategy: Highlight the benefits of Q Comp participation to school and district administrators.
  - Strategy: Indicate that changes in culture and thinking can be positive.
  - Strategy: Increase publicly available success stories about Q Comp implementation and impact.

2. Districtwide implementation of Q Comp

- Monitor and respond to teachers' experiences with Q Comp.
- Show teachers how to manage the aspects of Q Comp that are viewed as cumbersome.
- Support each district in clarifying how Q Comp complements other district initiatives.

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INTRODUCTION

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A. OVERVIEW OF THE EVALUATION

Hezel Associates' framework for the evaluation of Q Comp was designed to determine whether the system is understandable, fair and credible, appropriately linked to desired behaviors and improved student performance and an efficient investment of resources. To do this, the Hezel team has considered each of Q Comp's components individually as well as in concert with one another:

- **Career Ladder/Advancement Options:** are designed to provide interested and qualified teachers the opportunity to take on leadership roles in the district and share their expertise with their colleagues while still retaining a primary role in student instruction.

- **Job-embedded Professional Development:** align professional development with schoolwide student achievement goals on a standardized assessment and provide teachers with time for collaboration and collegiality during the school or teacher contract day.

- **Teacher Evaluation/Observation:** help teachers show continuous improvement in instructional skills through formative teacher evaluation/observation focused on a rubric and provided by a team of evaluators/observes. This process must occur at least three times per year for all teachers and must include at least two different evaluations/observers.

- **Performance Pay:** A system for awarding teachers, additional compensation based on attaining various performance indicators with at least 60 percent of any compensation increase focused on three factors: schoolwide student achievement gains on a standardized assessment; measures of student achievement such as classroom, grade level, or team goals; and teacher evaluation/observation results.

- **Alternative Salary Schedule:** reforming the traditional "steps and lanes" salary schedule so that any permanent base salary increases for teachers are based on performance factors rather than longevity/continued employment.

A key component of the evaluation is assuring that we have sought multiple types of data from multiple sources. Our methods and findings sections detail these activities and learnings, and sustain our commendations and recommendations for the future of Q Comp.

METHODS

A. RESEARCH QUESTIONS AND GENERAL APPROACH

As in all sound evaluations, a set of core questions drives the evaluation of Minnesota's Q Comp initiative. The five questions that fueled the evaluation examined whether, how, and under what conditions Q Comp exerted a meaningful impact on the performance of districts/schools, teachers and students:

1. In what ways do districts and schools statewide implement Q Comp? In what ways can similarities and differences in implementation be characterized?
2. How effective are MDE's Q Comp infrastructures and activities in supporting district- and school-level implementation?
3. To what extent does Q Comp contribute to changes in student performance and school improvement outcomes? To what extent are changes consistent across districts, content areas, grade levels and other dimensions?
4. What internal and external conditions are necessary to support the integration of Q Comp into schools' existing school improvement efforts?
5. How effective is the incremental compensation delivered through additional pay for career ladder positions, performance-related pay and alternative salary scales in terms of improving teacher quality and increasing student achievement?

The evaluation team addressed these research questions in a series of activities, which unfolded logically over the course of the five month project, ranging from more general formative and summative evaluation activities that took place in all participating Q Comp districts/schools, to more specific activities that involved a selected group of Q Comp and non-Q Comp comparison sites. Data collection was coordinated and consistent across Q Comp and non-Q Comp districts/schools so that valid comparisons could be made and so that formative data logically informed summative activities. Concurrently, evaluators collected in-depth information that was unique for each Q Comp district/school.

B. RESEARCH ACTIVITIES

Our research activities were designed to be integrated and to matrix data across multiple sources in order to address the inquiry areas stated in the original Q Comp Evaluator RFP. Table 1 shows our plan for collecting integrated data during the Q Comp evaluation:

Table 1. Matrix of Data Collection Activities by Evaluation Areas Stated in RFP

	Description of participants	B.1.	B.2.	B.3.	B.4.	B.5.
		MDE SI administrative activities	Programwide Q Comp implementation and impact (e.g., 60 districts/schools)	Implementation of school improvement initiatives in non-Q Comp districts/schools	Subset of Q Comp districts/schools	Outside stakeholders
Activity 1: Preliminary consultation with MDE	Staff at MDE who are directly involved with Q Comp design, support and/or implementation (e.g., Q Comp application reviewers)	✓	✓	✓	✓	✓
Activity 2: focus group interviews with MDE's Q Comp support staff	Up to five participants for each focus group interview, representing the School Improvement (SI) Q Comp staff, SI Professional Development Team and staff outside the SI division	✓	✓			
Activity 3: Online surveys of Q Comp implementation	One administrator and all teachers in every Q Comp district/school	✓	✓			
Activity 4: Online surveys of community/ stakeholder awareness of Q Comp	All school board members and at least 25 percent of the population in each census group, randomly sampled		✓			✓
Activity 5: Analysis of student performance data across all 60 Q Comp districts/ schools	All students attending Q Comp districts/schools					
Activity 6: Comparative case studies	Districts, schools, administrators, teachers, students			✓	✓	
6a. Follow up to implementation survey	All administrators and teachers at each case site			✓	✓	
6b. Follow up to MDE focus group interviews	At least one randomly selected district leader, school leader, teacher leader and union representative at each site	✓		✓	✓	✓
6c. Teacher focus group interviews	No more than 15 randomly selected teachers per site	✓		✓	✓	
6d. Student performance data analysis	All students of teachers participating in 6c.			✓	✓	

1. Activity 1: Consultation with MDE

Hezel Associates' initial face-to-face consultation with MDE on September 22, 2008 provided a valuable context for the evaluation. The meeting attendees consisted of four members from the evaluation team (two in person and two over the phone) and four MDE staff. There was a break in the meeting to allow for an evaluator-facilitated focus group interviews (see Activity 2 below) and then the more general discussion resumed later in the afternoon. The meeting addressed the following topics:

- An overview of Q Comp, including the history, five components, current context, participating sites, indicators of effectiveness and MDE's role and level of involvement.
- An overview of the evaluation, including the deliverables, timelines, client expectations and report purpose and audience.
- Communication and coordination of logistics, including contacting Q Comp schools for data collection activities, strategies for encouraging study participation and obtaining databases (e.g., student data files, school contact information, demographic data available on the MDE web site, etc.).

During the visit, MDE provided Hezel Associates with several data files that provided context for the districts (or schools) that have applied to participate in Q Comp, including both accepted and rejected applications. The Hezel team subsequently used this information to refine our evaluation design and activities.

Following the kick-off meeting, it became evident that in order to comprehensively collect data from all Q Comp participants, it was necessary to expand upon the list of 60 Q Comp "sites" (in most cases referring to districts) provided to the evaluators. In time, the evaluators understood that the number of schools in Minnesota with Q Comp experience (not counting the 2008-2009 school year) exceeded 400[1].

2. Activity 2: Focus group interviews with MDE staff

While at the initial kick off meeting with MDE (see Activity 1), the evaluation team simultaneously conducted two focus group interviews with key staff involved in Q Comp. MDE invited attendees that were appropriate for and available to participate in the focus group interviews. Each focus group interview lasted approximately one hour and included staff from the School Improvement division (Q Comp and professional development team) and the Commissioner's office. One group had three attendees and the other had four attendees. The protocols for the focus group interviews provided a structure for gathering information about Q Comp including:

[1] The exact count is difficult to determine because of school closings, consolidations, or other factors.

- MDE staff roles and involvement (including technical support, networking meetings, annual conference, etc.)
- MDE's program expectations
- The application process
- Perceptions from various groups, including Q Comp and non-Q Comp schools, as well as other stakeholders and the community
- Implementation successes and struggles with the five components

The contextual information gathered during the focus group interviews (Appendix 2) provided an overview of Q Comp, helped to inform future protocol development and allowed for comparisons of program implementation to expectations of MDE staff.

3. Activity 3: Q Comp implementation survey

The Hezel team worked closely with MDE to develop two online surveys--one for school/district-level administrators and another for teachers--containing a series of attitudinal questions regarding Q Comp that address three themes: general attitudes/information about Q Comp, collaboration, and implementation of the Q Comp components. The Hezel team then launched an email campaign in late-October 2008, asking participants to complete the online surveys.

The survey URLs were emailed to approximately 7,500 teachers and administrators across Minnesota's Q Comp schools (see Table 2). Hezel Associates shared the names of all schools identified by MDE as established Q Comp participants (not newcomers to the program) with Market Data Retrieval (MDR), who identified 7, 393 appropriate recipients in their contact database – 337 of whom were principals/assistant principals or other school-level administrators, and the remainder of whom were teachers. Further, the evaluation team emailed the administrator survey link to an additional 147 district-level personnel with contact information provided by MDE.

Table 2. Q Comp implementation survey response rates

	# Distributed	# Received	Response rate
Teachers	7056	1872	26.5%
Administrators	484	180	37.2%
Total	**7540**	**2052**	**27.2%**

The majority of administrators who responded to the statewide implementation survey were principal/school-level administrators (79.4%) who oversaw grades K-2 (67.2%) and grades 3-5 (68.3%). Nearly three-fourths of teacher respondents were female (73.6%) and most had obtained at least a Master's degree (73.9%). Teachers have been employed at their current school for varying amounts of time, with half the respondents having spent one to nine years (50.9%) at their current school and the other half 10+ years (49.1%). Nearly a third of respondents taught general elementary education or were assigned to multiple subjects (self-contained/elementary; 32.8%), and 18.1 percent

taught reading/language arts (see Table 3). All grade levels were present in the sample, and a correspondingly equal distribution was represented across responses; the greatest percentage of teachers taught at the K-2 grade level (32.1%) and the 9-12 grade level (33.8%).

Table 3. Primary teaching assignment (n=1868)*

Subject	Frequency	Percent
Self-contained/Elementary	612	32.8%
Reading/Language arts	339	18.1%
Mathematics	205	11.0%
Science	167	8.9%
Social studies/History	155	8.3%
Special education	113	6.0%
Foreign language	28	1.5%
Technology	16	0.9%
Other	233	12.5%
Total	**1868**	**100.0%**

*Four respondents did not answer this survey question.

After concluding the survey in mid-November, the Hezel team cleaned the data and calculated descriptive statistics on all closed-ended questions. All open-ended responses were then coded and analyzed. Cross-tabulations--including examinations by demographic variables--were analyzed on survey items that showed variability in initial descriptive responses (though responses were not weighted by any variables); these variables included years teaching experience, gender, grade level, subject, and highest degree obtained. Responses from both the administrator and teacher survey are embedded in the findings below, and any notable comparisons are indicated. Survey responses *only* represent Q Comp schools; non-Q Comp participants were not contacted.

4. Activity 4: Community awareness survey

To complement the statewide survey, focus group interview and student performance data analysis, the Hezel team developed a survey asking community stakeholders statewide about their knowledge and perceptions of Q Comp. Multiple Internet searches and feedback from MDE combined to yield 325 individuals with valid email addresses, including: PTA leaders, Q Comp advisory board members, Q Comp principals, the Minnesota School Board Association, union leaders, and the Minnesota Chamber of Commerce. Evaluators invited these individuals to complete the survey directly using a message co-signed by MDE staff, and also to forward the link to other relevant stakeholders. Since MDE and Hezel Associates have very little direct contact with these or any of Q Comp's stakeholders, distribution of the stakeholder survey was somewhat limited.

Although there is no way of determining the full reach of our survey invitations, out of 325 direct invitations, 76 surveys were completed (23.4% response rate). Twenty four

respondents did not indicate an affliation. Of the remaining 52 respondents, about half were school administrators (53.8%) and one-quarter were parents (see Table 4).

Table 4. Affiliation of Community Awareness Survey respondents (n=76)

Subject	Frequency	Percent
Parent	13	25.0%
Local business person	5	9.6%
School staff member	1	1.9%
School administrator	28	53.8%
District administrator	4	7.7%
School board member	1	1.9%
Total number respondents for *this* question	**52**	**100.0%**
Did not respond	24	
Total number of survey respondents	**76**	

5. Activity 5: Student performance data analysis

To complement our focus group interview and statewide survey findings, the Hezel team conducted an analysis of student performance data to determine whether and to what extent school participation in Q Comp impacts student achievement as measured by the MCA-IIs. In order to gather the necessary data to address the central question of whether or not student achievement has been affected by different types of Q Comp implementation strategies, evaluators obtained[2] student achievement data as well as teacher and administrator survey data from all Q Comp schools. MCA-II scale scores in reading and math for grades 3-8 and 10-11 for 2006, 2007, and 2008 were identified for each Q Comp school; this data was obtained from MDE's Universal File Formats. Additional variables such as types of school and level of Q Comp/TAP implementation for each year were added to the database; the number of years in Q Comp/TAP was identified for each school through a computation using supplemental data in the database. Teacher and administrator survey data was also merged into the data set. There were 684,326 cases[3] in the database, including approximately 16,294 unique students associated with Q Comp schools. Data regarding Q Comp implementation strategies measured by the teacher and administrator online surveys described in Activity 3 were added to the MCA-II data provided by MDE. A total of 45 districts responded to both the teacher and administrator surveys.

To answer the question regarding the effect that Q Comp strategies may have had on student achievement, the evaluation team conducted a series of regression analyses (see the glossary in Appendix 1) to determine the set of variables from the surveys that best

[2] The student achievement data was obtained from MDE's Universal File Format.

[3] Many of the students were duplicated because there were a total of 42 permutations of students with different characteristics – two for subject (reading and math), seven for grade level (grades 3-8 plus grade 10 in reading and grade 11 in math), and three for year (2006-2008).

predict student achievement. Each response on the surveys was used as independent or predictor variables, and MCA-II scale scores were used as a measure of student achievement, or the dependent variable. In total, there were 232 predictor variables. Given such a large number of predictor variables, evaluators conducted three different sets of regression analyses and, because students had more than one MCA-II score in the database due to multiple subjects, multiple years and multiple grades, evaluators computed a total of 36 regression equations – six for the first set of regressions, 12 for the second and 18 for the third. Regression analyses were done for both subject areas (reading and math), each of the three years of interest (2006, 2007, 2008), and for three grades (3, 8 and 10/11).

The Hezel team used a stepwise regression technique so that each time a variable was entered into a regression equation, it was also possible to remove a variable from the equation if doing so maximized predictive power. Stepwise regression also allows two requirements for each variable as it is being considered for entry into the equation. One entry requirement is a simple correlation of the variable to the dependent variable, and the other is the change in predictive power that the variable contributes over the previous set of variables in the equation.

For the first regression iteration, all 232 predictor variables were entered into the equation. This iteration of regression equations only involved MCA-II scores from 2008, which produced a combination of 11 variables that contributed variance to the dependent variable. For the second iteration of regression equations, all 232 variables were again entered into regression equations, this time involving only data from 2006 and 2007. Nine of the 11 variables from the first iteration contributed significant variance to MCA-II scores. These nine variables were the product of the second iteration. The third regression iteration used only these nine variables in regression equations involving both reading and math, grades 3, 8 and 10/11, and all three years. From those regression equations, the evaluation was able to identify four variables that contributed to test score variance in all three years. Bivariate Pearson correlations (see Appendix 1) of each of these four variables with MCA-II scores for both subject areas and all three levels for 2008 allowed us to determine the direction of the correlation.

After completing the regression analyses, evaluators utilized statistical procedures to compare MCA-II scores of charter and public district schools. These procedures are called t-tests (see Appendix 1), and are used to compare the means of two independent groups. In addition, bivariate Pearson correlations revealed the relationship between student achievement and the number of years schools have been in Q Comp. Lastly, descriptive statistics for all demographic variables in the database were calculated, including ethnicity, limited English proficient status, free and reduced lunch status, and special education status.

6. Activity 6: Comparative case studies

The Hezel team created the case study site selection methodology and protocols[4] after consulting with MDE and reflecting on our initial focus group interview data (Activities 1 and 2; Appendix 2). The case study sites were hand-picked to represent unique combinations of characteristics such as geographic location, district size, number of years using Q Comp, etc. For increased variation, there was an expectation to have at least one TAP school and one charter school represented. Within these districts, evaluators identified and contacted schools for participation using additional school-level variables such as AYP status and student demographics with a goal of assuring variability across the sites. To the extent possible, MDE did not influence our site selection, except when some of our "first" choice sites did not want to participate for various reasons or did not respond. In the end, a blend of "first" and "second" choice sites participated in the case studies. After solidifying the seven Q Comp or TAP schools, evaluators then recruited seven comparable non-Q Comp schools, matched by district and school variables[5]. The fourteen schools the evaluators visited in November 2008 had a fairly diverse distribution of characteristics (see Table 5), including years of Q Comp experience and progression through the Q Comp implementation process.

Table 5. Characteristics of the 14 case study sites.

	Q Comp/ TAP[6]	Q Comp start year	District size[7]	Grades	Location[8]
School 1	Yes	05-06	Medium	k-5	Rural-fringe
School 2	Yes	05-06	Medium	9-12	Rural-fringe
School 3	No	n/a	Medium	k-5	Town-distant
School 4	No	n/a	Medium	3-5	Town-distant
School 5	Yes	06-07	Large	6-8	City –large
School 6	Yes	07-08	Large	k-8	City –large
School 7	No	n/a	Large	k-5	City –large
School 8	No	n/a	Large	k-5	City –large
School 9	Yes	06-07	Small	k-4	Rural -distant
School 10	Yes	06-07	Small	5-8, 9-12	Rural -distant
School 11	No	n/a	Medium	k-4	Town -fringe
School 12	No	n/a	Medium	9-12	Town -fringe

[4] We did not have the benefit of using other anticipated data sources for informing case study site selection, such as the implementation survey results or student achievement data. There are other interesting variables to consider but the data is not readily accessible, such as leadership turnover, level of involvement of school leaders, varying amounts of change that has occurred since Q Comp started, etc.

[5] Although our original design called for four Q Comp sites and four non Q Comp sites, we later understood that "sites" meant districts and MDE preferred for us to visit two schools per district, not one school per district, except for the charter site.

[6] "Yes" indicates the school is a Q Comp or TAP school; "no" indicates they are not participating in Q Comp or TAP.

[7] According to MDE, a "small" district has a student population up to 1000, "medium" is 1001-10,000 and "large" is over 10,000.

[8] The location category was obtained from the National Center for Education Statistics.

School 13	Yes	05-06	Small	k-5	City-small
School 14	No	n/a	Small	prek-6	Rural -fringe

The 14 case study sites varied in MCA-II trends. The percentage of students who attained "Meets the Standards" or "Exceeds the Standards" on the MCA-II assessment for 2005-2006, 2006-2007, and 2007-2008 were examined for each case study site. In looking at the fourteen case study schools, the seven Q Comp schools were compared to the seven non-Q Comp schools (see Figures 1, 2, 3, and 4). On the face of it, the results of this comparison between Q Comp and non Q Comp case study schools do not appear markedly distinctive. No test of statistical differences was performed.

By contrast, of the seven Q Comp schools, five schools demonstrated an increase in the percentage of students meeting or exceeding the mathematics standards, but two showed very little, if any, change. No test of statistical difference was applied to these comparisons. Note, however, that the three years of data may include some years in which Q Comp implementation had not yet begun for any given school. Of the seven non-Q Comp schools (#3, 4, 7, 8, 11, 12 and 14), three schools increased the percentage of students meeting or exceeding the mathematics standards, two decreased, one fluxuated and one showed very little change.

Figure 1. Math proficiency over three years: Q Comp case study schools

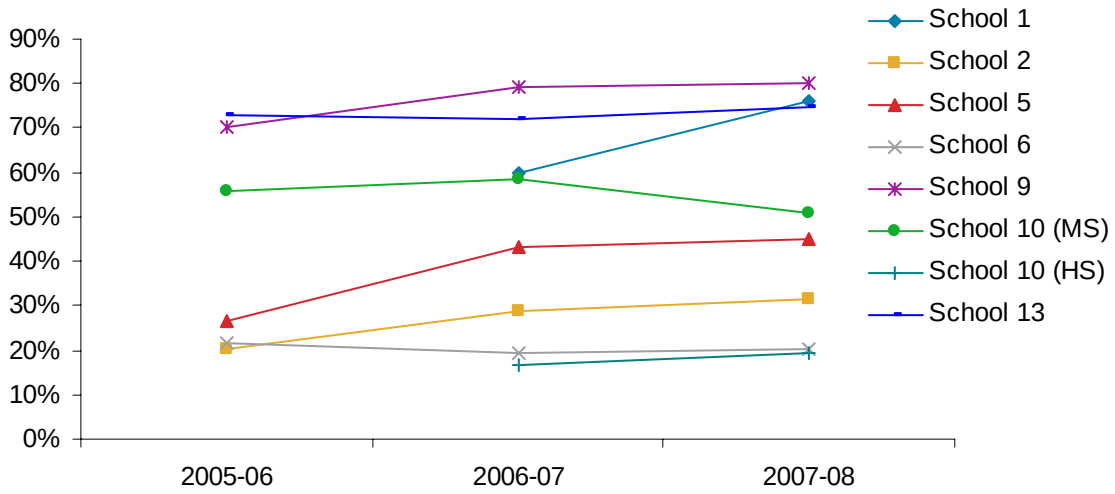
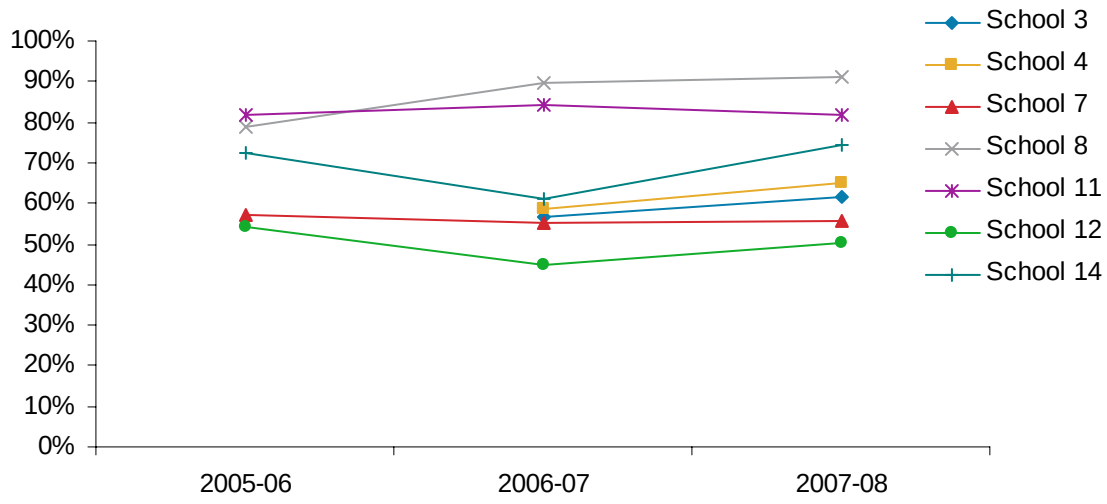


Figure 2. Math proficiency over three years: Non-Q Comp case study schools



The percentage of students meeting or exceeding the reading standards increased in three of the seven Q Comp case study schools over time. The percentage increased over time for three of the seven non-Q Comp case study schools as well.

Figure 3. Reading proficiency over three years: Q Comp case study schools

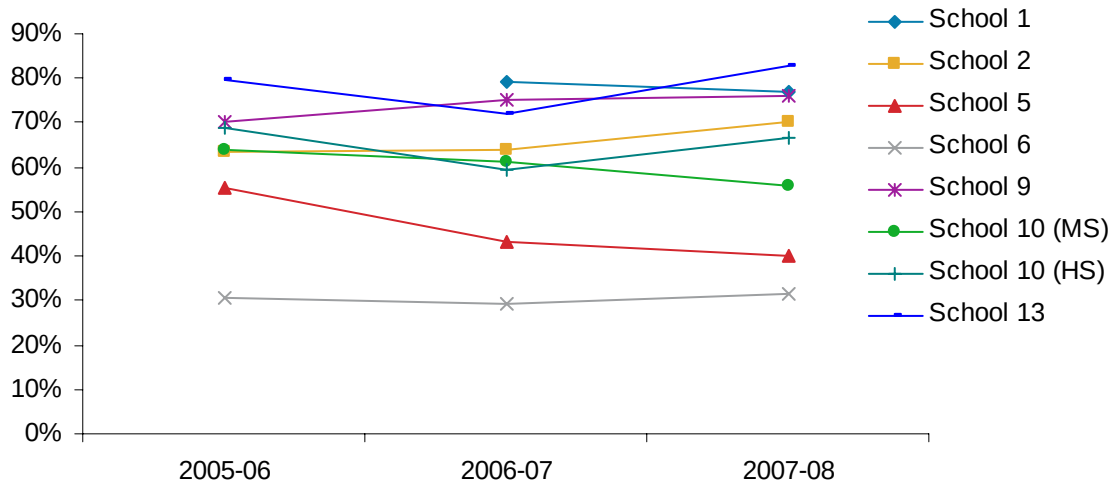
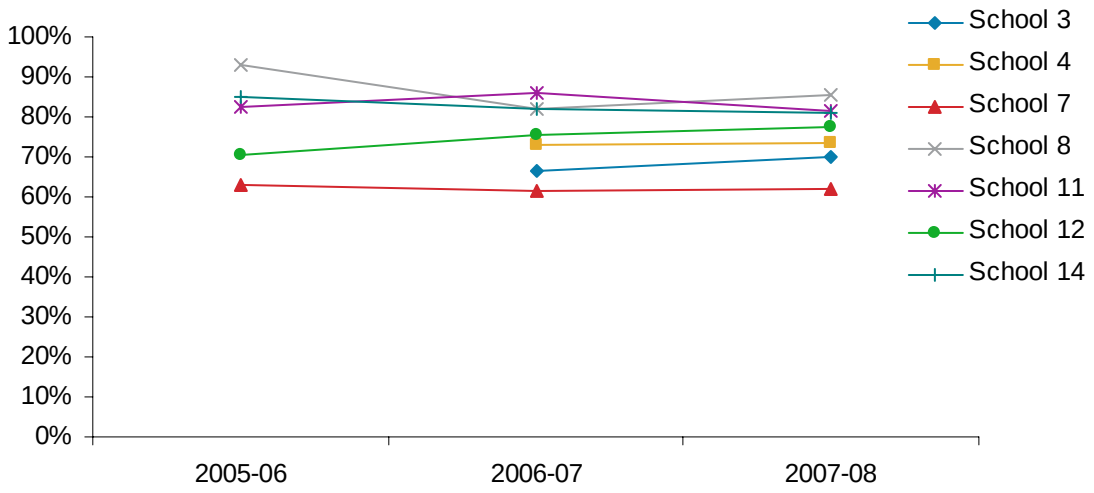
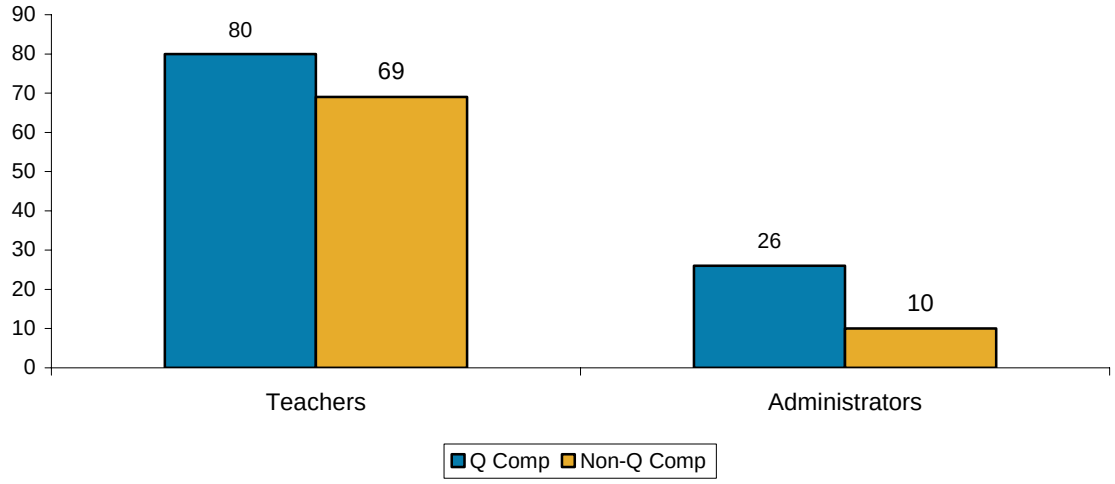


Figure 4. Reading proficiency over three years: Non-Q Comp case study schools



Since finding time for focus group interviews was difficult to incorporate into teachers' schedules, evaluators did not necessarily know how many people could contribute to the case studies until they arrived. In some schools, administrators gave the teachers the option to attend the focus group interview during their planning time, while teachers were not given a choice in other sites. Some schools declined participation in the evaluation altogether simply because the teachers were not willing to give approximately 45 minutes to the study. In some sites, particularly non-Q Comp sites, teachers were very reluctant about giving up their meeting or preparation time to instead address the Q Comp evaluation. Since completely random teacher seletion was not feasible (we had to work around times that teachers were not in the classroom), a school representative was asked to create a schedule for the visiting evaluator. A request was made to include variation in the teacher focus group interviews, such as number of years teaching, grade level, and attitude towards Q Comp (do not "stack the deck" with teachers who all feel the same way). Ultimately, we met with 185 people during the fourteen site visits, consisting of 149 teachers or other non-administrators (i.e., specialists, nurses, social workers, psychologists, office staff, etc.) and 36 school or district-level administrators (such as principals, assistant principals, superintendents, union representatives, etc.). The relative proportion of teachers to administrators was very similar for Q Comp and non-Q Comp sites (see Figure 5).

Figure 5. Case Study Participants



The protocols used during site visits called on question areas and questions utilized in other aspects of the evaluation – in order to both ensure triangulated data and to allow for a deeper understanding of key areas than surveys alone could achieve. For Q Comp sites, evaluators asked all staff to complete the statewide implementation survey distributed earlier in the fall in order to gather the perspectives of individuals not directly involved with focus group interviews or other data collection events. A corresponding non-Q Comp survey was also developed and distributed to all staff in the non-Q Comp study sites. These survey results were used to supplement other case study data sources, rather than being analyzed in isolation. For each Q Comp and non-Q Comp site, evaluators utilized the following protocols:

- Sitewide implementation survey
- Teacher focus group interview
- Administrator focus group/interview

Once the site visits were complete, the evaluation team utilized an approach very similar to Strauss and Corbin's[9] version of grounded theory to cull themes from the integrated data and to generate summaries of each site visited according to the evaluation's broader inquiry areas. From each site's individual summary of findings, evaluators generated broader projectwide findings, commendations and recommendations as presented below.

[9] Strauss, A. & Corbin, J. (1998) *Basics of qualitative research, Techniques and procedures for developing grounded theory*, Second Edition. Thousand Oaks, CA: SAGE Publications.

FINDINGS

Our integrated research methods and the use of non-Q Comp comparison sites allowed us to generate a summary of findings that calls on multiple types, sources and levels of data. This approach increases the validity of our findings while also raising additional research questions for future evaluation activities.

A. MDE SCHOOL IMPROVEMENT ADMINISTRATIVE ACTIVITIES

The consultation/kick-off meeting and focus group interviews with key staff at MDE in late September shared information about the administrative activities provided by MDE's School Improvement division. In November, the administrator and teacher focus group interviews during the case study site visits gave another perspective on the role that MDE plays in Q Comp implementation, as did the community awareness survey. MDE particularly wanted data concerning the district Q Comp plan approval, technical assistance, and annual Q Comp conference and networking meetings.

1. The MDE perspective

MDE plays a critical role in communicating and hosting activities related to Q Comp. Staff within the School Improvement division and Commissioner's office range from partially (as low as 5%) to wholly (100%) devoted to Q Comp during their work day. MDE focus group interview participants described their roles in Q Comp, including drafting legislation; ensuring the law is carried out; handling application assistance, review, and approval; overseeing the Q Comp program and staff; monitoring implementation fidelity; writing RFPs; corresponding with Q Comp participants; helping to articulate SMART goals; and being involved with professional development as it relates to Q Comp.

In the focus group interviews, MDE explained district applications can have great variability, as long as the five components are met. One participant explained,

> Applications will look different in each district, depending on what they do and what they have in place. Each district has choices. They just need to fulfill the requirements and meet the criteria. We get different applications every day. One component may look similar to another site, but each is very unique.

When looking at initial applications, MDE is looking for rigor and strength of all five components. They look to see how it all fits together and how it is structured. They look for activities that are happening and how regularly they are happening. MDE checks the applicants' staff development calendar. With regards to teacher observation, they look for what model is being used, how long it has been used, if it has been field tested, and if it has been modified. For performance pay, MDE examines at the goals and the amount of money for each goal.

With regard to program plan updates or revisions, MDE explained there is not a due date for the application, but it needs to be approved by October 1 of that year to implement. The plan updates come in any time (often times in June, July, and early August). Districts find they need to change their numbers. They may have more or less teachers in the upcoming year. There may be tweaks to the program. They re-evaluate each year.

MDE shares information with interested, applying and participating districts. MDE offers an annual conference and networking meetings. The conference is offered in January and has a networking focus. The attendees consist of a mix of participating (Q Comp) and interested (non-Q Comp) school representatives. MDE presents topics such as defining the administrators' role, professional learning communities, the five Q Comp components, and how to write quality plans. The purpose of the networking meetings is to engage schools already implementing Q Comp. Attendees learn from one another, address goal setting (including SMART[10] goals) and better recognize district needs. MDE explained the networking meetings are offered three or four times per year, are topic-driven, the attendees have more opportunities to interact and it is less formal than the conference. As a result, MDE recognizes the participants are setting more realistic goals.

Information about Q Comp is also available on the MDE web site in the "teacher support" section. Additionally, MDE provides technical assistance to schools as they work through the application process and are articulating goals. Participating districts were surveyed this past year; however, that does not happen every year. MDE analyzes the results and then makes changes. MDE discusses the survey results with the Q Comp advisory committee based on many sources of information (including, but not limited to, surveys).

When asked, "Which of the five Q Comp components have districts had the most difficulty implementing and where have they needed the most support?" several of the MDE focus group interview participants first indicated the monetary (such as reforming the salary structure and performance pay) and professional development components of Q Comp, followed by teacher evaluations. These components can be viewed as controversional and time-intensive. As one MDE participant explained, "The long-term problem has been the conversion to an alternative pay schedule." A different staff person at MDE said, "The most difficult component of Q Comp for districts is professional development because they have to learn a new definition of it." From MDE's perspective, the career ladder seems to be the easiest component to implement, partially because some districts already have one in place.

[10] SMART is an acronym for strategic, measurable, attainable, results-oriented and timely.

Focus group interview participants were specifically asked, "Do you foresee any needs for refinement or changes in the Q Comp structure or approval status?" With regard to potential changes to the Q Comp system, MDE feels that schools generally do a good job of implementing their stated goals and activities with the existing structure. A focus group interview participant commented, "We don't need law changes. People need to get gradually used to it." Another MDE staff member indicated:

> We should be cautious about not changing the statute right away. We want time to analyze what should be changed. At some point, maybe we could add principals to make them part of the program. We may need to better define the performance pay and salary schedule piece.

In thinking about what capabilities the School Improvement team could consider strengthening to raise the quality of support provided to Q Comp districts, one MDE focus group interview participant shared:

> They [schools] need more information about good peer evaluation systems. The staff needs exposure and training in the evaluation processes. Teachers need to buy in if they don't feel they have an objective and fair evaluation. Districts say they are doing professional development, but they need to learn how to link it to their building, classroom, and school goals.

2. The school perspective

Administrators at Q Comp schools typically heard about and became interested in Q Comp from administrators at other participating schools and, like administrators, teachers had heard about Q Comp from colleagues at other schools. Administrators and teachers heard more about Q Comp when it was first introduced in press releases by the governor and then less over time. According to our site visits and survey, administrators and teachers at *non-Q Comp* schools did not necessarily have accurate information about the responsibilities and purpose of Q Comp.

Experiences with MDE varied greatly among case study participants – some knew what MDE's role was in the administration of Q Comp, others had applied to participate in Q Comp, and yet others indicated they were not getting enough information to know what they thought of Q Comp. In particular, some teachers at non-Q Comp schools were scrambling to look up background information about Q Comp before meeting with the evaluation team during the site visit, as they did not know how to contribute to the discussion. Case study participants generally wanted to hear more from MDE about Q Comp. When asked, "How effective has MDE been in communicating the Q Comp initiative to administrators and teachers?" a non-Q Comp case study administrator said, "It has not been effectively communicated. It is not coming in emails or mail. I'm not hearing it as dialogue among colleagues or teachers." When asked,

"Would you support implementing Q Comp in your school?" many non-Q Comp case study teachers said they didn't know enough about Q Comp to have an opinion. When asked, "Are you satisfied with MDE's involvement and offerings such as the annual Q Comp conference or other school improvement workshops?" a case study non-Q Comp administrator stated, "They [MDE] need[s] to 'sell' their offerings and workshops to districts that are interested, and not just those that are already participating."

3. The community perspective

Respondents of the Q Comp community awareness survey, albeit very limited, provided some feedback about MDE's administration of Q Comp. Close to two-thirds of the respondents either agreed or strongly agreed that Q Comp represents a good investment by MDE (60.6%) and that the level of information provided to them about Q Comp activities has been appropriate (67.7%).

B. Attitudes about Q Comp

1. Administrators and teachers

At the start of the evaluation, MDE articulated several indicators of Q Comp success in focus group interviews and during the kick-off meeting. Some of these indicators are attitudinal and include: increased collaboration, increased interest in improving teaching practices, renewed excitement in teaching, improved school culture, increased focus on using student data, and improved teacher attraction and retention conditions. MDE's expectations for indicators of successful Q Comp implementation were called upon in developing our evaluation protocols in order to determine whether these indicators are, in fact, appropriate, and also to determine perceptions of progress with respect to each indicator in Q Comp schools. Teachers and administrators at Q Comp schools clearly had different attitudes about Q Comp, when compared to those at non-Q Comp schools.

In the surveys, more administrators viewed Q Comp positively compared to teachers, whereas in the seven case study sites that are current Q Comp participants, the majority of teachers *and* administrators shared many positive experiences with the focus group interview leaders. In a survey of Q Comp participants, administrators tended to agree that teachers considered Q Comp to be successful in their district, that administrators supported implementing Q Comp at their school/district, and that most teachers in their school/district support implementing Q Comp. When teachers were asked the same questions in their survey, few agreed. This teacher sample of survey respondents, however, appears to contradict the actual conditions in the Q Comp schools, in which the majority voted on Q Comp, suggesting most teachers view Q Comp positively. Teachers were typically neutral on whether the cost of implementing Q Comp could be better used for across-the-board raises for teachers and whether being a designated Q Comp school was a positive association for the school; administrators, however, rated

these statements more favorably. Further, while just over half of administrators found the program makes their school/district more attractive, teachers were primarily unsure of this. Nevertheless, both teachers and administrators were largely neutral on whether Q Comp improves teacher retention (57-59 percent).

Case study focus group interviews provided rich data about administrator and teacher attitudes toward Q Comp. In Q Comp schools, the majority of the administrators and teachers had to be in support of Q Comp before applying for and voting on participation in the program. Although some uncertainties existed in the beginning, after the program got off its feet, those with hesitations began to change their views. After seeing Q Comp's evolution since implementation, a case study teacher indicated, "Now, Q Comp is more functional and meaningful to me than it was originally."

At first, the transitions and responsibilities associated with becoming a Q Comp school can be overwhelming or uncomfortable for teachers, but given the proper culture and structure within a school, teachers can be made to feel that Q Comp is "doable" and valuable. Within a non-judgmental, supportive, and collaborative setting, teachers enjoy and appreciate working at their school and this is no different for Q Comp schools. Some case study teachers who were coming into a new school chose to interview at certain schools because they participated in Q Comp. They had heard favorable comments from Q Comp participants or they enjoyed the Q Comp experience at their prior school. A principal at a participating school explained, "We all appreciate working here. At other schools, there is a lot of turn-over. We lost just one teacher last year. People really believe in what we do. Everyone takes responsibility for student growth – it's 'all' of our students, not just 'your' students."

Given Q Comp's hallmark features of continuity and regularity of professional development, increased teacher dialogue, the availability of mentors and coaches, and opportunities for self-reflection, teachers in Q Comp schools are looking at instruction under a new lens. One teacher described, "You walk away (from a meeting) feeling it is useful. You don't question, 'Why are we learning this?' You don't feel you're wasting time. There is buy-in that it's being run well." Another teacher explained:

> It's far better than the process I've used before, which was filling out a Professional Development Plan. It was hollow. I would fill out paperwork, but with little feedback, it was just a piece of paper. I wasn't given instruction or support. I was excited to join a TAP [Q Comp] school. I would now get more meaningful staff development.

On the other hand, non-Q Comp schools portrayed mixed reactions about Q Comp. While some were interested in joining the program or even working on their applications, others didn't know enough about Q Comp to have an opinion. Others had

some negative perceptions either from misinformation or teachers who were participating in Q Comp at other schools.

When asked on the statewide implementation survey to identify the *single most* significant value of Q Comp, administrators and teachers both agreed that the program has led to **greater collaboration** with staff (32.2% administrators; 37.8% teachers). Improved professional development (27.1% administrators; 18.2% teachers) and improved student performance (16.4% administrators; 12.8% teachers) were also cited by respondents as having significant value, while fewer respondents indicated greater teacher pay for student performance (related to being in the Q Comp program) and greater professionalism for teachers as being significant values of the program (see Table 7).

Table 6. Significant contributions of Q Comp, according to administrators and teachers.

Response	Percent Administrators (n=180)	Percent Teachers (n=1833)
Greater collaboration with staff	32.2%	37.8%
Improved professional development	27.1%	18.2%
Improved student performance	16.4%	12.8%
Greater professionalism for teachers	14.7%	8.6%
Greater teacher pay for student performance related to being in the Q Comp program	4.5%	10.5%
Other	5.1%	12.2%

2. MDE

The survey and case study findings corroborate with MDE's favorable perceptions of Q Comp, as discussed during the initial kick off meeting and MDE focus group interviews in September. MDE staff were asked about the general response or perception of Q Comp by teachers, principals, districts and other stakeholders in Q Comp districts, as well as by those in non-Q Comp districts. In general, MDE staff believes teachers in Q Comp sites view Q Comp positively. When teachers have not had control or input into the process, however, feelings can be more negative. Also, according to MDE, principals are generally supportive, though some may view Q Comp more negatively because they are misperceiving Q Comp to mean losing a certain amount of administrative control over school operations because they don't understand their role. MDE senses that non-Q Comp districts may have negative attitudes about Q Comp because they don't know enough about it.

3. The community

The Q Comp community awareness survey revealed attitudes and knowledge of Q Comp of the general public. Out of 76 respondents, 82.9 percent had heard of Q Comp and 71.1 percent knew of a school or district in Minnesota participating in Q Comp.

When presented with numerous statements and response options ranging from strongly disagree to strongly agree, the greatest percentage of survey respondents agreed that collaboration between teachers and administrators will increase as a result of Q Comp (61.6%), Q Comp can be successfully implemented in most Minnesota school districts (61.5%) and that Q Comp is effective (57.6%). The majority of respondents (77.8%) were either neutral or disagreed that the cost of Q Comp could be better used for across-the-board raises for teachers. Most (72.3%) were also neutral or disagreed that the cost could be better used for other school operating costs. In contrast to teachers and administrators, the community awareness survey respondents viewed the most significant potential benefit of Q Comp as improved student performance (43.1%). The greatest number of respondents indicated improved teacher practice (40.6%) as the second most significant potential benefit.

C. Programwide Q Comp implementation and impact

The evaluation team presents findings from an integrated analysis of survey, focus group interview, case study and student performance data by three key areas: the nature of Q Comp implementation, the nature of TAP implementation and also impact that Q Comp participation has had on state-, district-, school-, teacher- and student-level outcomes.

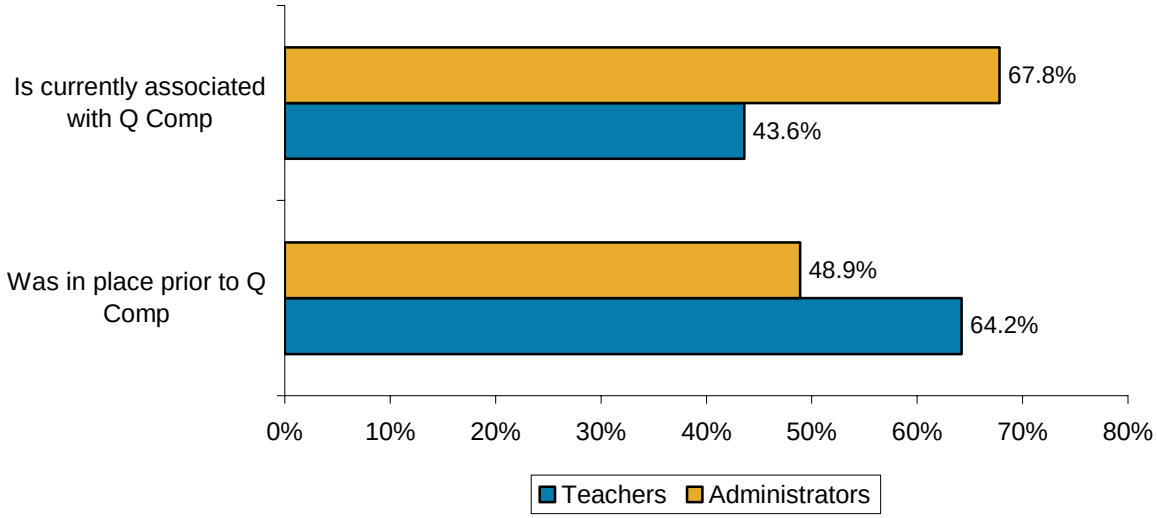
1. Q Comp implementation

a. Career ladder/advancement options

Notably, teachers often appeared to describe components of their salary schedule/performance pay synonymously with the career ladder, and seemed to have difficulty distinguishing between the two. Therefore, teacher comments below may be out of sync with Q Comp's intentions for and definition of the career ladder.

In the implementation survey, teachers and administrators reported interesting differences in their perceptions of career ladder *existence* both prior to and during Q Comp (see Figure 6). The majority of teachers believed career ladders were in place prior to Q Comp, compared to fewer than half of administrators; conversely, most administrators believed Q Comp-specific career ladders are currently established in their schools, while far fewer teachers agreed (and 29.4 percent were actually unsure – though case study sites were familiar with their career ladders).

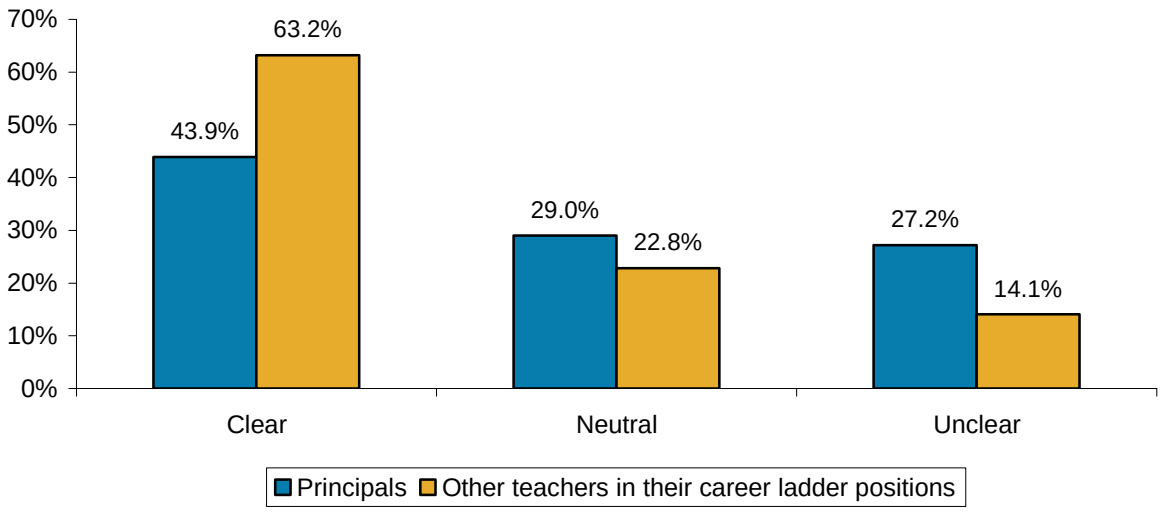
Figure 6. Teachers and administrators whose schools have a career ladder that:



Over half of newer teachers (1 to 3 years experience) were unsure if their school already had a career ladder in place *before* Q Comp (50.9%) or if there is *currently* a career ladder in place associated with Q Comp (58.7%) – compared to only 17.5 percent and 28.8 percent, respectively, of veteran teachers (20+ years experience).

Focus group interview teachers from Q Comp schools were generally familiar with their career ladder systems, or believed this information to be widely available and easily accessible. Teachers from only two case study schools felt the advancement process is still unclear and that some roles are not well-defined. However, at most other schools, teachers felt once they get someone to help them understand or seek out relevant district documents, the formula used to generate the ladder system is fairly straightforward (the reference to "formula" may be indicative of teachers' confusion between the career ladder and salary schedule). This is evident in the implementation survey, as close to 80 percent of teachers (78.5%) felt they have a thorough understanding of the process and requirements by which they advance to higher levels on the career ladder, as did three-quarters (75.2%) of administrators. Fifty-four percent of veteran teachers (20+ years experience) reported a "very thorough" understanding of this process in comparison to 17.6 percent of new teachers (1 to 3 years experience). Administrators and teachers generally believed teachers have a clear understanding of their role and duties in their career ladder positions (77.9% and 80.5%, respectively), and that teachers can effectively handle all the roles expected of them (75.4% and 74.1%, respectively). Teachers participating in a Q Comp career ladder seemed to have a better understanding about how to share leadership responsibilities with *other teachers in their career ladder position* than with *principals* (see Figure 7).

Figure 7. Teachers' understanding of how to work together/share leadership responsibilities with:



Teachers who participated in focus group interviews indicated the primary means of advancement is to take a position of responsibility, though a handful of schools also mentioned advancement via classroom observations and professional development; nevertheless, the former reportedly advances teachers more quickly and offers higher pay (again, teachers may be confusing the career ladder and salary systems). Teachers are selected for career ladder positions in various ways. In some schools, selection has become a joint decision between the teacher and administrator, whereas in most schools there are more formal processes that require applications and interviews. At one school, teachers are personally invited by the principal, and teachers could agree to take on the extra responsibilities and become part of the administrative leadership team (which is open to all teachers); in these positions, teachers work with teacher teams in mentoring, coaching, and planning site-based professional growth. Further, Master's degrees are required for advancement in at least two schools.

Most teachers believed the career ladder system is fair and offers teachers equal opportunity (particularly people at younger ages) – though availability of these higher positions is limited in some schools, perhaps because some may not be implementing Q Comp components as sanctioned by MDE, or are struggling to make such transitions. For instance, in one school, advanced positions are held for six to seven years, and it takes some time for positions to open once they are filled. Teachers noted there are limitations to advancement, though if they are not able to take a particular step, they are not necessarily blocked from advancing as there are several layers and directions teachers can take to progress up the ladder. Teachers can still be rewarded via the professional development they commit to, the observations, and other facets of Q Comp. Participants reported that while inherent contention might not be avoidable, there is no evidence of "flat out competition," and the process of accepting teachers into

higher positions up the career ladder has been conducted professionally. For instance, in one school, candidates interview with multiple people, and anyone can ask to be on the interview committee – teachers feel having professional dialogue among several people helps make the process more equitable.

Typically across the schools, as teachers set and meet their personal/ professional goals – whether at their own pace or over an academic year – they reportedly move up a step on the ladder (again, this is more indicative of salary schedule rather than career ladder). Nevertheless, there are reportedly several steps to the advancement process – two schools in particular described at least six levels (though it appears that focus group interview teachers sometimes interchange career levels and levels associated with their alternative salary schedule – i.e., Teacher Levels 1-3, Mentor Teacher, Teacher 4, Career 1, etc. – which could be an area of further clarification/edification for teachers). Sometimes these levels are limited and cut-and-dry (e.g., choosing among only lead teacher, curriculum coordinator, or peer mentor); however, one school in particular has two paths teachers may choose after completing the first three levels – classroom performance or leadership – which can then branch off into other options (e.g., the leadership path veers off to peer leaders, curriculum/ program specialists, instructional specialists). Two schools mentioned advancement options/mentorship programs that were available to teachers prior to Q Comp (i.e., curriculum coordinators, mentor teachers), which then used Q Comp as a means to pay these teachers for their efforts and create more teacher-leader positions.

This process has changed in several schools since Q Comp's inception. For instance, teachers believed the applications for advanced positions had been amorphous in the past, but now that they have set more criteria, there is more respect for the positions and the career ladder is easier to follow.

Generally, teachers enjoy the additional responsibilities in the new advancement systems that ladders offer. As one teacher explained, "It's not like Steps and Lanes; you can't just occupy a seat to go up – you need to do something. You can make a decision professionally and personally, and off you go." Other teachers found it difficult to step into these positions due to time constraints, especially those with young families. One elaborated of the added responsibilities:

> I hesitate bringing it up – it's a hard thing to state – for someone who has a lot of responsibilities outside of school, it's a lot to ask of me. I cannot physically do it, even though I want to do it. It's not a discriminatory thing; it is a personal choice. But it is a little inflexible in terms of time…It leaves a group of us outside of the picture.

Teachers are sometimes expected to maintain their full-time class loads in addition to career ladder responsibilities associated with Q Comp (though some schools do adjust

teachers' workloads). Some described taking on the additional responsibilities and worrying about how they will fit it all in later. One administrator added, "The time issue, or perception of a time issue, might hold teachers back from trying these – only one person in these roles who has tried them said she couldn't do it. People who have stepped forward are invigorated with what they've observed. They've figured out how to manage it." Administrators in the same district noted there are now 85 teacher leaders out of the 382 teachers in the district, compared to only 40 before Q Comp arrived. Therefore, despite the difficulties teachers describe, they ultimately seem to be pursuing these positions in greater numbers now than they had before Q Comp.

Teacher pay in the Q Comp charter school included in our site visits was lower on average than that of their colleagues in regular public schools. The charter school has always had a career ladder system that included lead teachers, curriculum coordinators and mentor teachers; Q Comp has allowed the school to compensate their mentor teachers.

Despite the success described by educators in their focus group interviews and surveys, both administrators and teachers were either unsure if (39.5% and 36.8%, respectively) or *did not feel* (31.1% and 41.9%) that the teacher career ladder is the major factor for Q Comp's success in their districts. Further, about one-third of both administrators and teachers were unsure if the addition of multiple career paths will encourage teachers to remain in the profession longer; just under half of administrators (49.2%) felt this will have a positive effect on longevity, compared to only 34.8% of teachers.

About half of *non-Q Comp* focus group interview teachers were familiar with the career ladder aspect of the program, while teachers from four schools were unfamiliar with career ladders. Some of the schools described similar facets of the career ladder already present in their non-Q Comp systems; for example, AP teachers are paid more in one school, and another school informally assigns teachers additional responsibilities (often without pay); the latter sees Q Comp as a means for providing teachers with more money for their extra work, and as a way to structure formal leadership positions. Interestingly, in one school that employs two (non-compensated) career ladder positions – content focus coach for literacy and RtI TOSA (Response to Intervention Teacher on Special Assignment) – teachers do not know what the term "career ladder" means.

b. Job-embedded professional development

Increased focus on student needs and teacher accountability appear to be primary consequences of all professional development models described by educators who participated in our research. While administrators and teachers sometimes disagreed on the execution and impact of their models, all generally agreed that Q Comp has added real value to their professional development opportunities.

All Q Comp sites by design are to hold regular team meetings. Most case study schools described meetings held during the contracted school day, most often during extensions added spefically for professional development (before/after school). Three schools specifically describe their professional development "clusters" held either weekly or bi-monthly – and generally by subject area – while two schools have begun regular team meetings in which they collaborate and share ideas. One charter school has designated days in which teachers sign up for workshops taught by fellow teachers, which was in place prior to Q Comp; the most significant change in this school has been a shift in emphasis on topics related to Q Comp goals (i.e., an increase in student achievement in math and reading). Across the case study sites, school staff has been tapped more frequently to present during professional development sessions, and session topics are geared more toward students (i.e., *constructed response options*) rather than general focus areas. Some teachers complete an individual growth plan, which tracks what teachers have learned through professional development and how it was applied. Further, a handful of schools described the addition or enhancement of mentoring programs.

In two case study sites, the professional development approach involves a structured set of courses required for both new and established teachers. The courses are typically taught by teachers who receive training based on a model developed by the American Federation of Teachers (AFT), and they have been embedded in the professional development system for the past four to five years – before Q Comp implementation. Courses for these districts are available during both the summer and the school year, spanning several topics – from best practices to content area. Most of the classes offered by the programs can be used for credit towards a Master's degree. Though some electives are available, courses are often meant to be interdisciplinary. The models typically provide alternatives to the regular course schedule. Teachers can participate in study groups organized around a common topic of interest, and they can do independent studies. The district limits these activities until a teacher has taken certain required courses or after a particular period of time (e.g., once every three years).

Some teachers from these two sites find the courses exceptionally time consuming – teachers are often assigned extra work, such as journal entries, research projects, and improvement plans. Further, these teachers noted the redundancy of many best practice courses, and that the focus on interdisciplinary strategies makes less room for some subject areas (i.e., science, foreign languages). While some find this repetitive, others find this a convenient refresher and a way to equip educators with aligned strategies. However, teachers also noted some inflexibility in the structure, as they are encouraged to provide classroom instruction in line with their professional development course format. This format reportedly becomes repetitive in the classroom – though while some find it difficult to meet both the professional development requirements and the needs of their students, others find ways to adjust and take what they need from the courses.

According to the implementation survey, topics most often addressed in professional development across Q Comp schools include data-based decision making, student assessments, instructional techniques, and differentiated learning (see Table 8). Administrators generally felt these topics *should* be addressed by the professional development activities, while teachers believed increased emphasis should be placed on content area/grade level, with perhaps less focus on data.

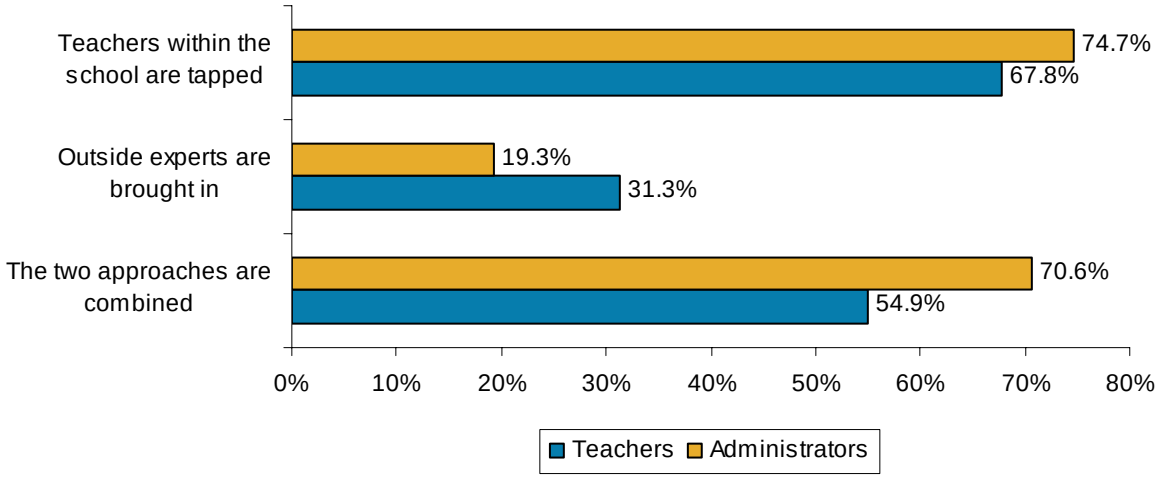
Table 7. Professional development topics (Admin n =180; Teacher n=1872)

	Actually covered		*Should be covered*	
Response	**Administrators**	**Teachers**	**Administrators**	**Teachers**
Data-based decision making	**90.0%**	**72.2%**	**93.9%**	60.1%
Student assessments	**87.2%**	**75.9%**	**93.9%**	**66.1%**
Instructional techniques	**84.4%**	**63.8%**	**90.0%**	**78.3%**
Differentiated learning	**80.6%**	**71.0%**	**92.2%**	**73.6%**
Standards-based lessons	66.7%	51.9%	81.7%	58.5%
The content area/grade level teachers teach	64.4%	52.2%	67.8%	**70.0%**
Small group instruction	51.1%	38.3%	67.2%	54.0%
Classroom management	49.4%	41.8%	62.8%	57.9%

Note: Percentages exceed 100 due to respondents being able to choose more than one answer; bolded numbers represent the four highest percentages for each column.

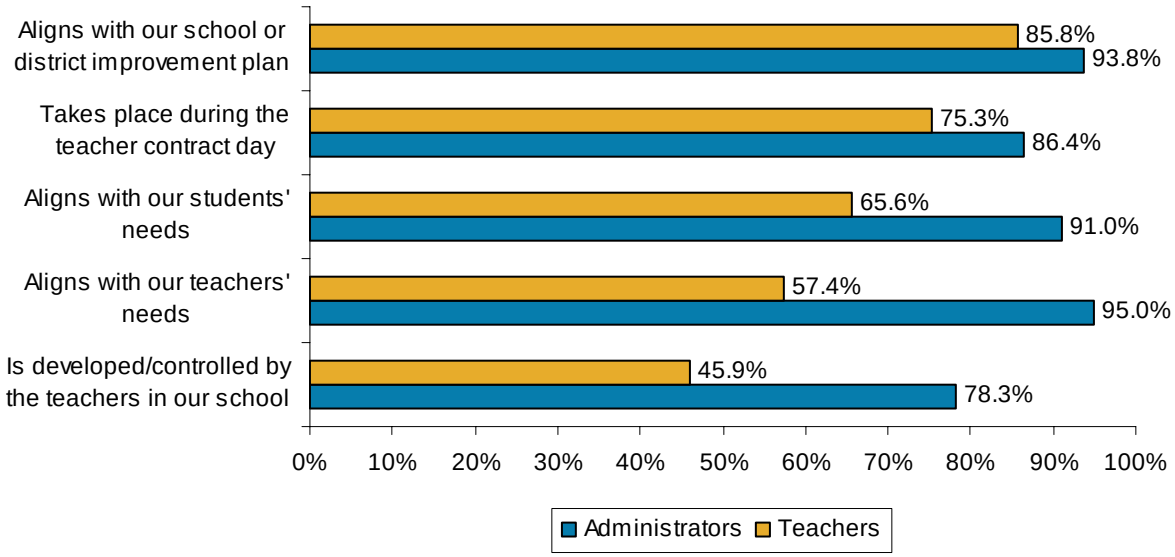
Both administrators and teachers reported that more often than not, teachers within the school are tapped to share insights and ideas for professional development content – though teachers were more inclined than administrators to report that outside experts *are* the primary professional development approach, and that the two approaches are *not* typically combined (see Figure 4; this is not necessarily reflective of what teachers *want* in schools, but is rather what they already observe). Further, administrators and teachers believe professional learning communities for teachers are present in their school to either a moderate or great extent, though administrators were slightly more confident of this (87.7%) than teachers (74.9%).

Figure 8. Primary approach to professional development in schools:



There appears to be, according to the statewide implementation survey, a sizeable disconnect between administrators and teachers regarding the alignment of professional development with needs and goals, as well as its development and execution. The overwhelming majority of administrators generally believe their job-embedded professional development aligns with their school/district improvement plan, aligns with both teacher and student needs, takes place during the teacher contract day, and is developed/controlled by the teachers (see Figure 5). Teachers, while typically in agreement with administrators on most items regarding professional development, were far more likely to feel uncertain or to disagree with these statements altogether.

Figure 9. Administrators and Teachers who feel job-embedded professional development in their school/district typically:



Most teachers believe that under Q Comp, the professional development has become much more valuable and relevant to teachers; it finally seems to have a purpose and can be applied immediately to the classroom. One teacher noted that, compared to professional development over the past 25 years, the training and opportunities have improved so much that the comparison is not even close. Q Comp seems to have embedded a sense of personal accountability, as teachers are expected to take what they learn back to their classrooms and follow up with the results. In fact, in at least two schools, classroom application of professional development is integral to the Q Comp evaluations. One teacher, in line with the general consensus, explains:

> This is professional development with a purpose – you're so disconnected after college. There are specified courses, but you can take ones that make sense to you, and you can change things in your classroom. What have you done, and what data you can take on affects your [evaluation] score. You do hands-on manipulating, and then report back to talk about how it went. You have to show you demonstrated research, and that you just try – you know when things are better than they were before, or what students respond to.

Slightly greater than half of administrators (61.7%) reported in the implementation survey that job-embedded professional development is *the* major factor for Q Comp's success in their district, compared to 36.7 percent of teachers, despite the improvements they reported in their focus group interviews. About one-third of teachers (32.5%) remained neutral, along with 22.8 percent of administrators.

Most teachers who participated in non-Q Comp focus group interviews were familiar with the concept of job-embedded professional development. About half the sites acknowledge this model is not common in their own schools. For many, professional development is currently provided through a combination of district offerings and outside workshops, which is reportedly not sufficiently flexible to meet the variety of teacher needs. Rather, many teachers, primarily by grade level, gather informally to share information and improve their teaching practice. At least four sites have weekly or bi-monthly PLCs covering a variety of topics. Three schools recalled limited mentoring programs, one of which only lasts a year for new teachers; two others mentioned informal mentoring in which every teacher takes someone under their wing. One teacher says, "The district level has dropped the ball in terms of leadership so we have to do it ourselves." Teachers were clear that there were many knowledgeable people right in their building who could provide them with quality development in various areas. One administrator (whose teachers are particularly unknowledgeable and skeptical of Q Comp) confirms this, and remarks, "They are already going down that [Q Comp] road and just don't know it." Administrators described financial constraints with professional development. A few schools were interested in looking at Q Comp to improve their models and teacher salaries, as they feel it is a legitimate means of providing more variety and accountability to their professional development.

c. Teacher observations/evaluations

In Q Comp sites, all teachers are evaluated and observed, regardless of experience level. They are observed by a variety of people, including principals, vice principals, teacher leaders, coaches, mentors, and/or peers. Conferences occur before and after observations where the teachers' own ratings are also considered. Observation training is provided and a specific protocol is used so the observer can be as objective as possible. A case study participant indicated that after joining Q Comp, the observation process has been "fine tuned" to focus on instruction and school goals and be more specific in dialogue about "school achievement."

According to a survey, both administrators and teachers indicated that teachers are typically observed or evaluated in the classroom once a semester (51.4% and 71.3%, respectively) or once a month (32.8% and 16.6%, respectively). Given the right messaging, Q Comp teachers can be made to feel at ease with observations, knowing there will be several during the year rather than only one, and the purpose of the observation is to enhance, not criticize instruction. A Q Comp case study teacher commented on evaluations:

> It's fine because we have a safe environment. There is trust. We get helpful comments, support and assistance. We're not being judged. The administrators, coaches and mentors are in our classrooms so much that we don't get worried. They take into consideration what they have seen all year, not just on one particular day.

In a survey, more than 70 percent of both administrators and teachers felt that teachers' performance is evaluated fairly and accurately under Q Comp, and that teachers are evaluated based upon defined teaching standards (see Table 9). More than three-quarters of teachers (78.3%) also agreed with the statement, "I use results and feedback from classroom observations to improve my teaching and focus." More administrators than teachers agreed with statements such as "teacher observations and evaluations under Q Comp measure important aspects of teachers' performance" and "teachers are evaluated based on a clear rubric that scores Q Comp's teaching standards."

Table 8. Teachers and administrators who agree or strongly agree with statements about classroom observations and teacher evaluations

Statement	Teachers	Administrators
My performance is (Teachers are) evaluated fairly and accurately.	81.8%	73.6%
I use results and feedback from the classroom observations to improve my teaching and focus where I need to grow professionally.	78.3%	n/a
(My) teaching is evaluated based on defined teaching standards.	76.8%	84.1%
Those in the Q Comp system who evaluate my (teachers') performance against Q Comp goals are	70.3%	68.2%

impartial.		
My teaching is (Teachers are) evaluated based on a clear rubric that scores Q Comp's teaching standards.	62.7%	78.5%
Teacher observations and evaluations under Q Comp measure important aspects of my (teachers') teaching performance.	63.7%	83.7%
Q Comp accurately distinguishes effective teachers from ineffective teachers at my school.	18.4%	47.2%

In contrast, at non-Q Comp sites, non-tenured teachers are typically the primary focus for any administrators conducting observations. Unlike Q Comp, usually the principals or vice principals are the only individuals who observe teachers. However, some teachers are being taught to conduct "learning walks" in which they collect evidence, then, do "wanderings." In non-Q Comp sites, teachers particularly feel uncomfortable with observations for a variety of reasons. In lieu of observations, teachers work on goal setting (at designated times of the year), but a consistent reflective practice is not apparent. When one non-Q Comp administrator was asked how teachers might react to having Q Comp at the school, he shared:

> It brings teachers to a level of professionalism they've never had before. They get rewards for successes. The downsides are getting used to being evaluated and the transition to rubrics. I think after really pitching it, about half of the teachers at this school would welcome Q Comp.

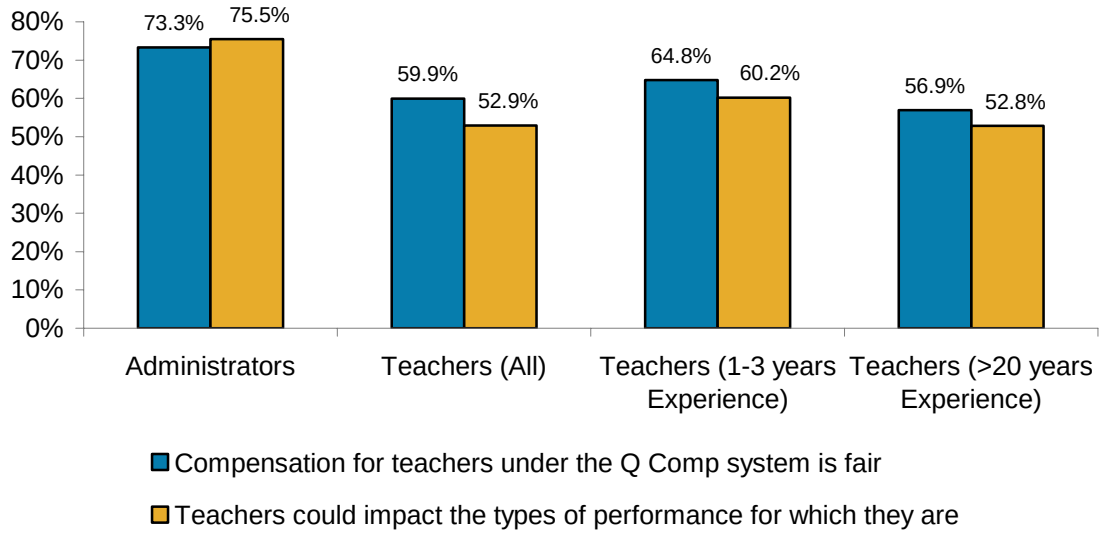
d. Performance pay

Schools who have implemented Q Comp tend to view it as an integrated program involving each of the five components, not just performance pay. Indeed, the program does seem to be well-integrated, with all five elements reinforcing one another. However, non-Q Comp schools who have considered implementing Q Comp tend to view it as a vehicle for providing more money to teachers. They also express doubts that funding for the program will be permanent, and therefore see little reason to implement the program (i.e., if it's only about the money, and the money's not guaranteed to be there, they see no reason to do it). Convincing non-Q Comp schools of the value of the non-compensation aspects of Q Comp will be critical if more schools are to join the program.

The design of the performance pay components in Q Comp schools appears to be well-balanced in terms of the types of performance incorporated. In most schools, teachers are paid more for higher performance evaluations, additional responsibilities on the career ladder, higher test scores, and professional development activities. All applications have schoolwide goals and all Q Comp participants (districts, charters and school sites) are required to send updated schoolwide goals to MDE annually. Schools have had to provide a detailed definition in their application of how progress will be defined and measured.

In the Q Comp survey and in the focus group interviews, teachers generally indicated that they are happy with the performance-based pay components of Q Comp and believe they are fair (see Figure 10). In the survey, there were some differences in views based on how much experience a teacher has, but the differences were small. Teachers in one focus group interview confirmed they felt being compensated for effort (as in the Q Comp system) is fairer than being compensated for experience.

Figure 10. Attitudes of teachers/administrators regarding Q Comp's compensation system



Feelings were mixed among teachers regarding whether the use of student test results in the compensation system was fair. In some schools, teachers did not show anxiety about test results being used. However, in one school there was some concern about using MCA-II as the primary measure of student results, given that it does not account for variations in the ability of students in a classroom from year to year. Some were uncomfortable with the idea that performance pay would be based on the results of a single test administered on a single day. In one school, there were only minimal concerns about the use of test results in the compensation system in the first year of Q Comp, when the schoolwide goals were achieved. However, in the second year, the school did not hit their schoolwide goal (and therefore teachers did not receive additional compensation), and teachers began to express more reservations about the use of the MCA-II results. Administrators generally were more supportive of using student test results in the compensation system.

Almost all teachers felt that it was appropriate to pay additional compensation to teachers who had additional responsibilities associated with a career ladder (83.9 percent of administrators and 80.0 percent of teachers agreed or strongly agreed with this statement). However, at one school, some teachers commented that this was unfair because teacher leaders had a reduced teaching load and were making more money.

The additional pay provided by Q Comp was seen by a number of teachers as compensation for extra work, as opposed to purely for performance. Teachers haven't necessarily bought into the idea that paying for performance as opposed to effort (or professional development activities) is appropriate. In the Q Comp survey, only a limited number of teachers thought that teacher performance and student performance on standardized tests should be important or very important in determining base pay and supplemental pay (see Tables 10 and 11 in next section). Potentially feeding into this notion is the fact that the design of the performance-based pay component relies heavily on effort-based measures in some schools, including paying teachers for attending specified professional development courses.

Feelings were somewhat mixed among teachers about whether the additional pay provided by Q Comp made up for the additional work required. In some schools, teachers believed that Q Comp rewards teachers fairly for the work that is required of them, while teachers in other schools feel the pay is minimal, relative to the additional hours of time. In the Q Comp survey, 45.8 percent of teachers agreed or strongly agreed that the potential monetary amount teachers can receive is appropriate given what they are being asked to do in Q Comp, while 34.6 percent of teachers disagreed or strongly disagreed.

Teachers, mentors, and coaches share a common concern that the financial gains behind Q Comp are not the driving motivator. Many teachers in Q Comp schools expressed in the focus group interviews they "don't need money to do what's good for students." One participant commented, "For the amount of time and work, the money is quite little. We were the ones who said money wasn't important. We don't want to help students for money; it's intrinsic in our jobs that we want to help students." Even though the additional pay was greatly appreciated by teachers, this sentiment was common. Teachers seemed to feel it would be inappropriate for someone in their profession to be motivated by money. Indeed, in the Q Comp survey, only 41.6 percent of teachers agreed or strongly agreed that Q Comp encouraged them to work harder than in prior years to receive more compensation.

Q Comp programs are, by and large, well understood by teachers (in the Q Comp survey 76.0 percent of teachers said they thoroughly or very thoroughly understood the criteria by which they earn greater compensation). However, many teachers expressed in the focus group interviews that the new systems were difficult to understand initially, and that the involvement of the administration, teacher leaders, or a Q Comp coordinator was critical in helping teachers to understand how the system worked.

As a corollary to this observation, administrative focus group interviews indicated that the implementation, communication, and administration of the compensation portions of Q Comp can be quite time consuming. Given this, smaller districts or charter schools

may not have sufficient resources to develop and administer a Q Comp pay system. Since teachers expressed that the pay components of Q Comp need to be carefully implemented to avoid any negative outcomes, this could be a potential area of concern.

e. Alternative salary schedule

Because in many Q Comp schools the alternative salary schedule is tied so closely to the performance-pay component of Q Comp, many of the same observations apply. However, in discussions with non-Q Comp schools, there was confusion as to exactly what is required for the alternative salary schedules. There was also hesitancy and resistance to change the current Steps and Lanes schedule, and uncertainty about what a suitable replacement would look like. Even in Q Comp schools, the traditional Steps and Lanes system still remains prominent in teachers' minds – teachers still believe, according to the implementation survey, that years of experience and highest academic degree earned should play the primary role in determining base pay and a significant role in determining supplemental pay (see Tables 10 and 11). However, the survey also provides evidence that less experienced teachers are more open to performance-based salary schedules (and supplemental pay) than teachers with significant years of total teaching experience, particularly when performance is determined by principal observations/evaluations.

Table 9. Important factors in determining teachers' *base* pay

	Administrators	Teachers		
		All	1-3 Years Experience	>20 years Experience
Years Teacher Experience	67.2%	**91.7%**	75.2%	96.5%
Highest Academic Degree Earned	74.5%	**90.5%**	84.4%	91.2%
Teacher performance, as determined by principal evaluations, observations, teacher portfolios, etc.	70.5%	**51.4%**	62.4%	46.6%
Student performance on standardized tests at the school level	33.9%	**14.2%**	17.4%	15.8%

Table 10. Important factors in determining teachers' *supplemental* pay

	Administrators	Teachers		
		All	1-3 Years Experience	>20 years Experience
Years Teacher Experience	16.1%	**43.2%**	23.8%	55.8%
Highest Academic Degree Earned	25.0%	**47.5%**	40.3%	54.8%
Teacher performance, as determined by principal evaluations, observations, teacher portfolios, etc.	76.7%	**54.8%**	70.6%	46.9%
Student performance on standardized tests at the school level	53.9%	**24.4%**	36.7%	22.0%

The difficulty in transitioning away from the Steps and Lanes schedule was confirmed in the focus group interviews of one Q Comp school; these teachers reported the change to a new salary schedule was enormously difficult, but the fact that there was more money involved made the transition easier. On the other hand, a charter Q Comp school indicated that since they did not have a Steps and Lanes system before Q Comp, the salary system is now much more transparent and better understood than it was prior to Q Comp.

Generally, Q Comp participants reportedly advance in salary by meeting requirements/goals from reviews, being observed, taking a position of responsibility (career ladder), demonstrating improvements in student performance (schoolwide test results), and spending time in professional development activities (i.e., PLCs). One school notes it can take several years to change salary positions.

In two Q Comp schools, an alternative pay schedule is not yet fully developed. The alternative pay schedule is required, but some districts are under timelines to create one so the alternative pay schedule is still in process or being developed. According to teacher perception, each individual teacher has the choice to move to the new salary schedule (as initially instituted by a districtwide vote) or not participate and stay on the traditional salary schedule (Steps and Lanes). Those who participate are compensated according to criteria mentioned above (i.e., observation results, time spent in professional development, test scores). MDE has clarified that one district has been given permission for a transitional timeline during which teachers can choose when they transition due to the drastic differences in the two schedules and the district's four-year MOU.

Two sites coexisting in a K-12 building created a new schedule that still essentially has "Steps and Lanes," but there are fewer steps for experience and more lanes for education and credits earned. Teachers are no longer paid strictly for years of experience, as was the case prior to Q Comp – but rather for proficiency in criteria mentioned earlier (primarily observation results).

One small charter school reportedly had no salary schedule or union in the school before or after Q Comp. Teacher pay was lower on average than in regular public schools. Before Q Comp, teachers received approximately a 1% raise each year; they also received extra compensation for the additional roles they assumed in the school. This school applied for Q Comp in the first year it became available in order to obtain more money for teachers. This latter motivation was common among schools; in fact, another Q Comp school utilized this in their recruitment. At a recruitment fair, the school hung a banner that included the much higher starting pay (thanks to Q Comp funds), and they reportedly had a line out the door with interested teachers.

One district in particular utilized a "strategic transition" system, as it made more sense for some teachers to wait a while before moving into the Q Comp system. As there are costs associated with moving teachers into Q Comp, there was some indication in the focus group interviews that the district may need to formally limit transitions by teachers still on Steps and Lanes in the future.

Another school experienced confusion in that the district's procedures regarding both teachers who had come from other districts and those who were already long-time teachers before Q Comp were unclear. Prior service credit was described as "tricky." The teachers on "justified advancement" or "catch up" programs under Q Comp seemed to understand these salary adjustments, but other teachers who were not directly involved were not as familiar. One teacher felt that under Q Comp, the salary structure was not equitable to newer teachers until they received a Master's degree – in fact, both sites in this district report they are expected to obtain a Master's before advancing in salary; the difference in salary could be as much as $30,000 later in their career, according to one teacher. These procedures, however, were clearer for the district's other site; teachers who had been with the school prior to Q Comp were given the option to either stay with Steps and Lanes or move into the new salary schedule – new teachers coming in after Q Comp move right into the new system.

2. TAP implementation

The Teacher Advancement Program (TAP)[11] is being implemented in two districts in Minnesota, totaling 15 participating schools for the current school year. TAP requirements are more intensive than Q Comp. TAP has four components (no alternative salary schedule) and Q Comp has five components. However, the professional development for TAP schools is particularly rigorous. When asked what TAP was, these teachers most often commented on the professional development meetings to enhance and unify instruction. One of the TAP districts has a district level lead TAP mentor. This position has been instrumental in supporting TAP participants and pursuing additional participants. Each of the TAP schools in this district are visited on an ongoing basis by the lead TAP mentor. The TAP schools are each equipped with a TAP mentor(s) and a TAP coach(es).

TAP schools have weekly meetings for administrative leaders and weekly or bi-weekly teacher training meetings (called clusters). A teacher described, "It (TAP) is building relationships across the whole school. We're all equals, even the administration –we're all struggling with the same things. It's not threatening." While teachers mostly see TAP as a means of increased collaboration, additional training, improved instruction and reflection, administrators at case study sites additionally viewed TAP as a resource for funding and staff. A TAP administrator explained, "It's been a good experience and

[11] See glossary in Appendix 1.

good segue into financial support that we needed for professional development. There will be barriers to overcome unless you have financial backing. I would be crushed if TAP wasn't voted in."

TAP principals, assistant principals, coaches, mentors, and teachers contributed to two of the case study sites. The participants disclosed numerous benefits of TAP. For example, a TAP mentor described:

> The principals are actively involved as educational leaders. The school plan works and is focused and valuable. Each year we are more fine-tuned in our strategies. We are creating rubrics for writing assignments now. Teachers are now in a high level of monitoring their work. We are very pleased. Students are doing better on MCA-IIs.

Outside MDE, there are mixed understandings of the distinctions and similarities between TAP and Q Comp. This was particularly evident when an administrator at a TAP school indicated that the teachers wouldn't know what was meant by "Q Comp" during the case study focus group interviews. It was suggested to substitute "TAP" in the protocols whenever "Q Comp" appeared. When non-TAP (Q Comp) teachers were asked if they would like to participate in TAP (Q Comp) in the future or what benefits and drawbacks do they envision if they were to participate, multiple case study teachers (usually at least half) said they had just heard about TAP (Q Comp) that day or they didn't know enough to know if they would like to get involved.

3. Q Comp impact

Given the relatively limited number of schools participating in Q Comp (see Table 12), the impact of the program on a statewide level is difficult to extrapolate. At a minimum, Minnesota has attracted national attention with the program, with numerous media and journal articles being written about Q Comp. Also, given the effects at the school and teacher level, Minnesota teachers appear to be more supported in their role of improving students' educational achievement since Q Comp's inception, though these trends cannot be linked statistically.

Table 11. Statewide Participation in Q Comp

	Number Participating in Q Comp	% Participating in Q Comp
Districts (n=336)	39	11.6%
Charter Schools (n=143)	21	14.7%

Since the evaluation has been very brief and preliminary, the evaluation team cannot comment on whether Q Comp makes the teaching profession in general more attractive to potential teachers (i.e., Does the presence of a program like Q Comp encourage more

individuals to join the teaching profession?). Opinions differ regarding the attractiveness of Q Comp to new teachers. In the Q Comp Survey, 19.4 percent of teachers and 51.1 percent of administrators think Q Comp makes a district/school more attractive to teachers they want to hire. While the evaluation does not have a "before" and "after" view of the public's opinions of performance-based pay for teachers, the stakeholder survey did indicate that 69.2 percent of respondents believe it is appropriate to pay teachers based on their classroom performance and 71.2 percent of responders would support implementing Q Comp at their local school.

a. District-level

The greatest impact of Q Comp can be felt at the school, teacher, and student levels. However, there are several points to be made at the district level. Some Q Comp administrators cited that there has been increased consistency from school to school within a Q Comp district in the way that expectations for students are set and in the teaching strategies that are being used. Additionally, some districts described the professional development activities associated with Q Comp that bring teachers from different schools together and enable them to share ideas and best practices.

There were also several potentially negative effects of Q Comp implementation observed at the district level. One smaller district reported there was less communication between schools within a district, given the focus on team building within each school. In addition, Q Comp may make it slightly more difficult for teachers to transition from district to district, given the differences in the design of the Q Comp systems. It might be difficult for a teacher to learn a new professional development system, career ladder, and compensation system when switching districts.

b. School-level

The impact of Q Comp at the school level has, overall, been quite positive. There have been substantial changes to school culture, instructional practices, schoolwide communication, focus, and management structure/practices of Q Comp schools.

(1) School culture

Several significant changes to school culture were revealed in the focus group interview discussions at case study sites. The primary change described was that Q Comp schools have become more collaborative environments, with significantly more sharing amongst teachers. Time set aside to collaborate with peers was one of the most valued, beneficial aspects of the program. Even though the various Q Comp sites had different amounts of collaborative time during the school week, all Q Comp sites observed this change (greater collaboration with staff was the top benefit to Q Comp reported by both teachers and administrators in the Q Comp survey). In particular, teachers' increased collaboration involved more sharing of instructional practices, ideas, and strategies. Teachers in Q Comp schools also have a chance to see how others give lessons and to learn from those experiences. They were pleased to have opportunities to see what

other teachers were doing in the classroom as well as to share what they themselves were doing. As one teacher observed in a focus group interview, "At other schools we keep our good ideas to ourselves. Here, we share our teaching styles, rather than keep our secrets." Teachers also feel less isolated in their classrooms, with more interaction with their colleagues. There is more of a team spirit, with teachers seeing efforts and struggles as buildingwide, not only at the individual level (e.g., "Everyone takes responsibility for student growth –it's 'all' of our students, not just 'your' students").

Related to the increased collaboration was a stronger sense of community in the school (e.g., "more tight-knit"). Teachers described feeling more collegiality with other teachers and a sense that "we're in this together." A teacher noted that the program gives teachers an opportunity to get to know others beyond their own grade level, and to "build relationships across the whole school." Of particular note was that newer teachers have a venue to get to know and learn from their more experienced colleagues.

One of the concerns regarding the Q Comp program is that it would cause increased competition between teachers. By and large, this problem was not observed at the case study sites. When probed, teachers in one focus group interview indicated that there might be a small amount of additional competitiveness, but most teachers indicated that this was not an issue, and that increased collaboration was by far more common. The Q Comp survey confirmed this finding, as 79.4 percent of administrators and 72.3 percent of teachers disagreed or strongly disagreed with the statement that teachers have become more competitive than cooperative with Q Comp.

Another change to school culture discussed in the focus group interviews and observed in the schools was that the schools had a more positive environment. Teachers were using their time together to discuss the practice of teaching rather than to complain about the school or the students. The environment was also more supportive, which is evidenced in the implementation survey – 84.6 percent of responding teachers felt supported by other teachers in their grade.

(2) Instructional Practices

All of the case study sites believe that instructional practices have improved under Q Comp. Administrators and teachers observed:

- More consistency and cohesion in how teachers teach, and therefore in the student experience from class to class. In a focus group interview, teachers in one school observed: "Teachers use similar terminology, strategies and approaches that it is unified as students go to different classrooms. Students know what is expected of them and what skills they are working on. The rooms even have similar displays to promote consistency." In another school: "I don't have to start over again in getting new students each year because they have

heard certain terms before because we all learn and use them. The students know the routines."

- A willingness to revise the curriculum when necessary, more deliberate construction of lessons, increased use of proven instructional strategies, and better instructional delivery (e.g., "better questioning and discussion")
- Teachers use student performance data more often to improve classroom instruction – 87.3 percent of administrators and 69.0 percent of teachers agreed or strongly agreed with this in the Q Comp survey. Teachers were also observed to be more focused on student test results as an indicator of success.
- Teachers set clearer, more effective instructional goals – 82.2 percent of administrators and 61.8 percent of teachers agreed or strongly agreed with this in the Q Comp survey
- As a result of Q Comp, teachers encourage students to keep trying even when the work is challenging – 68.9 percent of administrators and 65.6 percent of teachers agreed or strongly agreed with this in the Q Comp survey
- Increased focus on student needs on differentiation (e.g., "we're adjusting our teaching based on students' needs")

(3) Schoolwide communication

Almost all of the case study sites mentioned improved communication as a significant impact of Q Comp. This was primarily discussed as it related to Q Comp giving administrators and teachers a common language/vocabulary to use (e.g., "there is a schoolwide continuum in which we talk using the same language").

Communication regarding students also improved, given the increased level of contact between teachers. Teacher meetings allow teachers to "know what specific students are struggling with" and then adapt accordingly.

Some sites also mentioned a better flow of information from the administration to the teachers, because teacher leaders were a part of the school leadership team and also worked closely with non-leader teachers.

The only negative in terms of communication that was observed was at a smaller district, where the focus was on improving relationships and teaming by grade/section (e.g., high school, middle school, elementary), and as a result, communication with teachers between sections suffered.

(4) Unified focus on and monitoring of schoolwide goals

Another school-level impact of Q Comp is that it provides a unifying focus and framework for participating schools and their schoolwide goals. Schools reported having common performance goals that provided clear expectations for both teachers and students, and this streamlining reportedly makes monitoring goal progress clearer

for all parties. One school reported that its schoolwide performance goals and focus were on student achievement in reading and math – this focus is seen in teachers' professional improvement plans, monitored in teacher observation rubrics and, ultimately, rewarded with performance pay. Another school reported that they had a unified focus on reading, with their teachers "working more cohesively toward a single goal." These common goals, emphasized by Q Comp, provided a unity of purpose stemming from a collaborative, student-centered focus.

One district utilized Q Comp as a jumpstart to setting concrete building goals and sticking with them. The program gave peer leaders the opportunity to work with other building leaders in settting these goals, and staff members meet regularly to discuss how they are meeting those goals.

The other advantage of Q Comp in this area is that it provides a framework into which other initiatives can be folded. Q Comp provides a holistic structure that can tie in other initiatives, causing schools to feel more organized and teachers to feel less like there are too many things going on at once.

(5) Leadership structure & practices

The administration at two case study sites described the role of the principal and how teachers were managed, given that teacher leaders reduce a principal's span of control. One site described an overall shift from administrative decision-making to teacher decision-making. Another described the benefits of having teacher leaders who are closer to the teachers than the principal may be – a teacher reported, "Sometimes, it's hard to approach administrators and suggest different ways of trying something, so I like having coordinators who are teachers, who wear a lot of hats and are open, easy to talk to, willing to try new things."

c. Teacher-level

Under Q Comp, teacher level impacts included changes to teacher attitudes, professional development, workload, and compensation levels.

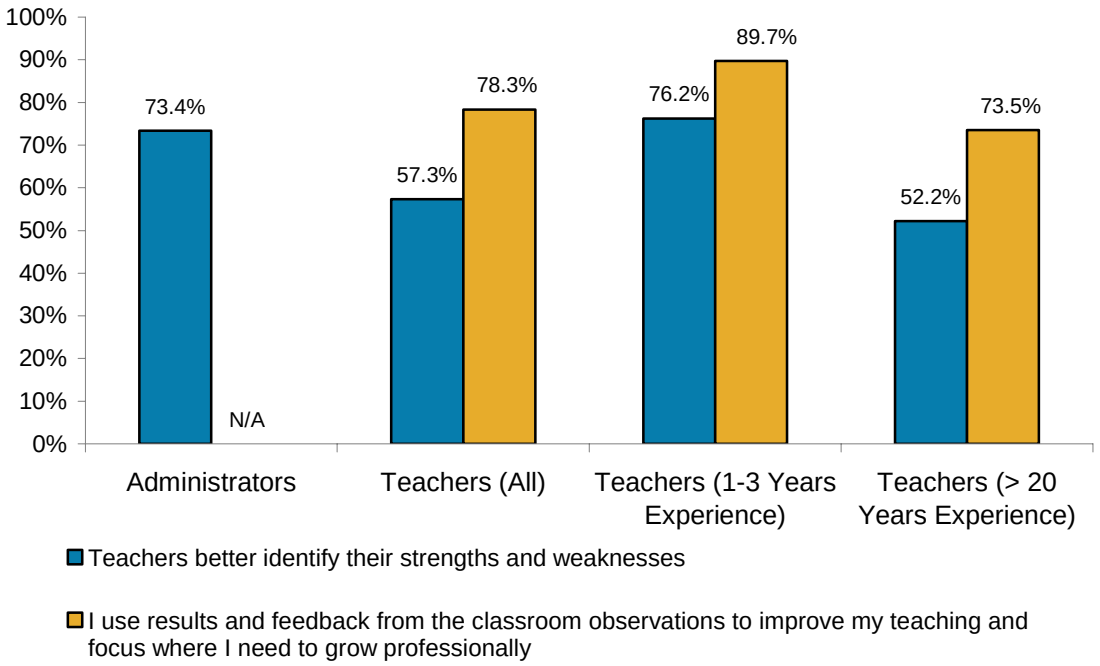
(1) Teacher attitudes

One of the most common changes in teacher attitudes was a renewed focus on their own development and teaching practices. One teacher remarked that Q Comp was "reinvigorating teachers across the board." Another remarked, "How do you not become an old teacher that does the same things? Q Comp doesn't let me get into a rut." One school noted that initially, teachers were quite set in their ways and less flexible to change their teaching practices; however, after three years under Q Comp, teachers are more flexible and willing to learn from one another.

Teachers were seen as being more reflective in their teaching practices (e.g., reflecting on lesson plans to improve student learning). In one school, teachers indicated that

journals and meetings force them to look at what they are doing and what would be helpful to change in their instructional delivery. They want feedback after observations and ideas from other teachers during meetings, and strive to do well and are more aware and conscientious of their teaching. The Q Comp survey confirmed this finding, as it indicated that teachers are better able to identify their strengths and weaknesses and use the feedback from their classroom observations to improve their teaching (see Figure 11). The survey data also showed that less experienced teachers tend to be more reflective than more experienced teachers.

Figure 11. Teacher/Administrator attitudes on outcomes as a result of classroom observations



An additional change in attitudes worth noting relates to observations and feedback. Teachers traditionally have been isolated in their classrooms, with visitors to their class providing a source of anxiety. However, in Q Comp schools, teachers were more comfortable with administrators and other teachers observing them and providing feedback. One of the reasons that teachers were able to be comfortable with this is that they felt these observations were "non-judgmental and non-threatening." Observations were seen as an opportunity to learn and to share their expertise with one another – one teacher said, "We're ok with admitting our faults" now. In one school, however, a teacher noted that there had been some instances of teacher observations where "friends evaluating friends" caused tension.

(2) Professional development

Under Q Comp, teachers have access to more unified and focused professional development. One teacher noted that they no longer go to isolated sessions where they

do not share or apply what they have learned. Rather, the techniques are implemented and evaluated and weekly meetings allow for ongoing discussion and a chance for teachers to spread their expertise. As another teacher noted, they had professional development that actually "has a purpose." The Q Comp survey confirmed this finding, as 95.0 percent of administrators and 57.4 percent of teachers believe job-embedded professional development at their school aligned with teachers' needs (and 91.0 percent and 65.6 percent, respectively, for aligning with students' needs).

(3) Workload/time requirements

Nearly all case study schools noted an increased workload for teachers due to Q Comp – more meetings, paperwork, and requirements that tax available time – and often longer schools days as a result of extended contracted time for activities like PLC meetings. Some felt that these increased requirements were particularly onerous on new teachers, who may be spending more time just getting up to speed with their teaching. The reaction to this increased workload was mixed across the case study schools. At one site, teachers did not complain about the increased workload or meetings because they felt that they were being compensated for it and that it was beneficial to themselves and their students. Another said that the increase in workload was initially quite difficult, but teachers have now adjusted and learned to handle it. In another school, teachers were initially comfortable with the additional workload, but in a particular year when they did not hit their schoolwide goal (and therefore did not receive additional compensation), teachers began to complain about the work involved (meeting time, writing professional improvement plans, and writing district and team goals). One teacher said that, "new teachers are staying away from Q Comp because of the extra work and extra stress."

However, teachers in Q Comp schools also spoke of less "wasted time." Meetings were more efficient and relevant, as were professional development sessions. While there was some benefit in terms of time commitments with Q Comp, overall, it is fairly clear that the system requires more time of teachers. The degree of comfort with this additional time required appears to be based on whether the teachers believe they are being fairly compensated and the investment of time is worthwhile.

(4) Increased compensation

Though many teachers indicated that they did not need additional money to be motivated to do what was right for their students, they also believed that additional compensation was only fair, given the increased time commitment required. Teachers also felt that basing this increased compensation on effort, as opposed to experience, was fair.

d. Student-level

In this evaluation, evaluators attempted to reveal the set of Q Comp implementation strategies that, in combination, best predict or produce success in student achievement. There is a wide variety of Q Comp implementation strategies that districts used, and this evaluation identified as many as possible in the teacher and administrator surveys. Therefore, responses to these surveys are the predictor variables used in the regression equations. MCA-II scores are the dependent variable as they represent student achievement.

Results of all three sets of regression procedures are provided in Appendix 3. Each regression equation provides an R coefficient and an R Squared for each independent variable. The first set of regression equations, using all 232 predictor variables from the surveys, was done with 2008 MCA-II reading and math scores in grades 3, 8 and 10/11. These regressions identified 11 variables that produced the best set of predictors for student academic success as a result of Q Comp implementation. These variables are:

A1a - Admin. Survey: Teachers consider Q Comp to be successful so far in our district.
A2a - Admin. Survey: Level of input the following groups had in developing their school's/district's Q Comp plan – Individual teachers.
A8c - Admin. Survey: How could the evaluation process be improved? – Evaluations conducted by better trained/more experienced teachers.
A9a - Admin. Survey: Degree you agree to the following statements: Those in the Q Comp system who evaluate teacher's performance against Q Comp goals are impartial.
A16b_b - Admin. Survey: Indicate to what degree you agree with the following statement: Teachers have a clear understanding of their role and duties in their career ladder positions.
A19a - Admin. Survey: Job embedded professional development in your school/district typically takes place during the teacher contract day.
T6a - Teacher Survey: Who is responsible for conducting Q Comp teacher evaluations/observations? Principal
T6b - Teacher Survey: Who is responsible for conducting Q Comp teacher evaluations/observations? Principal/Vice Principal
T16b_a - Teacher Survey: To What degree do you agree with the following statements: With the addition of multiple career paths, I will remain in the teaching profession longer.
T21e - Teacher Survey: What topics do the professional development activities and discussions in our school address? Standards-based lessons
T21f - Teacher Survey: What topics do the professional development activities and discussions in our school address? Student assessments

The second set of regression equations was conducted to determine if additional analyses from 2006 and 2007 MCA-II scores would change the variable combinations that best predict student achievement. Again, all 232 variables were entered into regression equations for both subjects and for three levels (grades 3, 8 and 10/11) for 2006 and 2007, just like they were for 2008. The results indicated that nine out of the 11 original variables from the 2008 analyses were also included in at least one regression equation in these additional analyses. The third set of regressions was performed on these nine remaining variables and produced 4 variables that in combination best predict MCA-II reading and math scores across all three years. It is clear from the third set of regression equations that variables A1a, T6a, T21e and T16b_a are the best combination of predictors of student success across subjects, across grade levels and across years.

In order to properly interpret these regression findings, the evaluation must first determine the direction of the correlations of each variable to the MCA-II scores. Appendix 3 displays Pearson correlations (see glossary in Appendix 1) between these four survey variables and MCA-II scores across subject and grades in 2008 that show the direction of the correlations.

These correlations are very low, yet statistically significant due to the high N. However, what is more important about these correlations is the consistent direction of the correlations for each variable. All correlations for Ala and T16b_a are positive and all correlations for T6a and T21e are negative. The implication of this finding is that *when Q Comp is implemented in schools the following set of conditions best predict or cause student achievement to increase:*

1. When school administrators feel that their teachers consider Q Comp to be successful in their school (Ala).
2. When teachers feel that someone other than the principal is responsible for conducting Q Comp teacher evaluations/observations T6a).
3. When standards-based lessons are *not* the main topic of professional development activities and discussions, but other topics are addressed (T21e).
4. When teachers feel that the addition of multiple career paths in their school will encourage them to remain in the teaching profession longer (T16b-a).

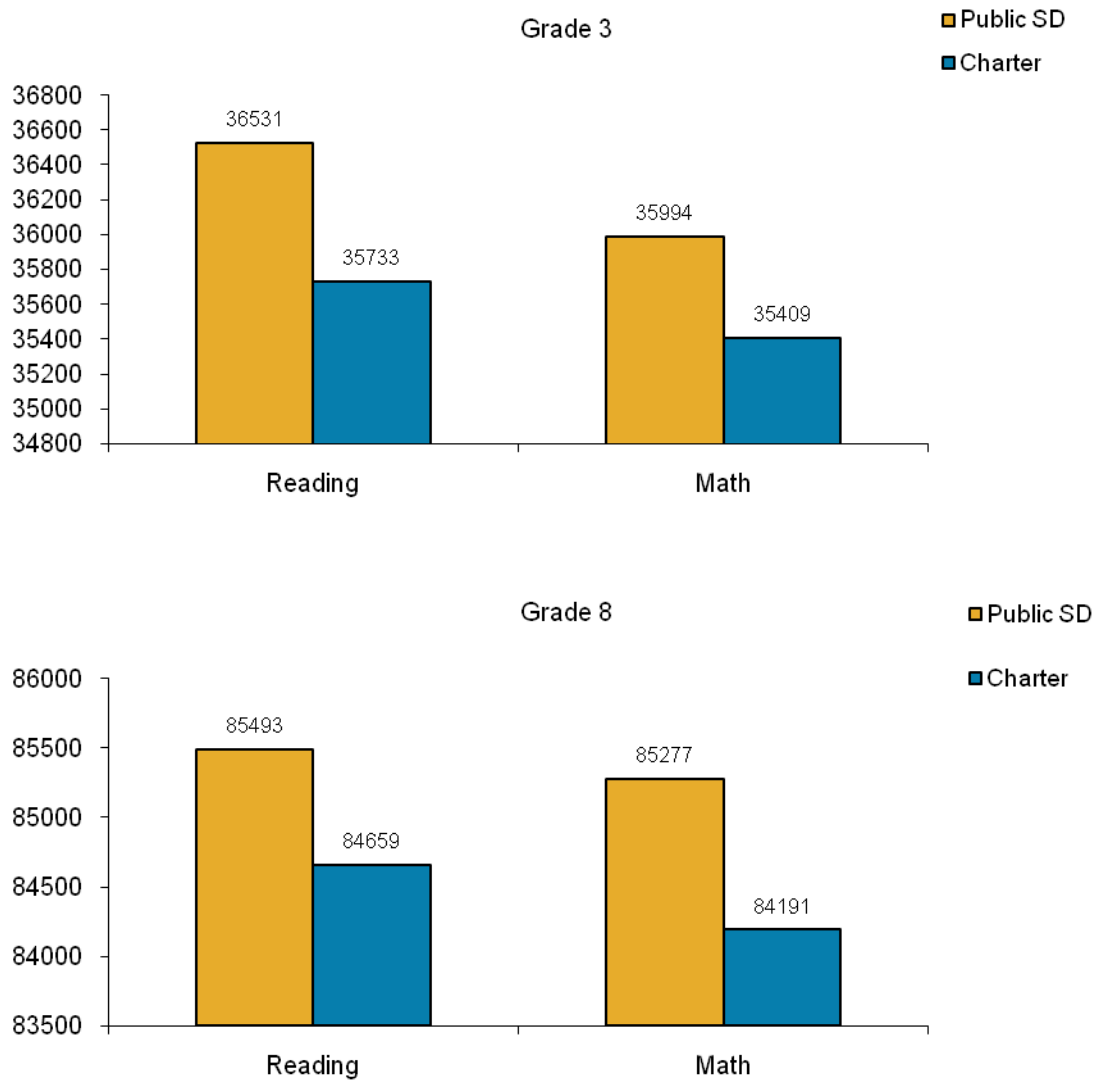
(1) Relationship between number of years in Q Comp and student achievement

Bivariate Pearson correlations enable us to understand the relationship between Q the number of years involved in Q Comp and student achievement. The correlations of years in Q Comp to MCA-II scores are presented in Appendix 3. All computations are for 2008. These correlations clearly indicate that there is a significant and positive relationship between the number of years a school is in Q Comp and student academic

achievement. This relationship is slightly less pronounced at the lower elementary level.

(2) Charter and public schools

Figure 12. Mean scale scores, reading and math, charter vs. public school district



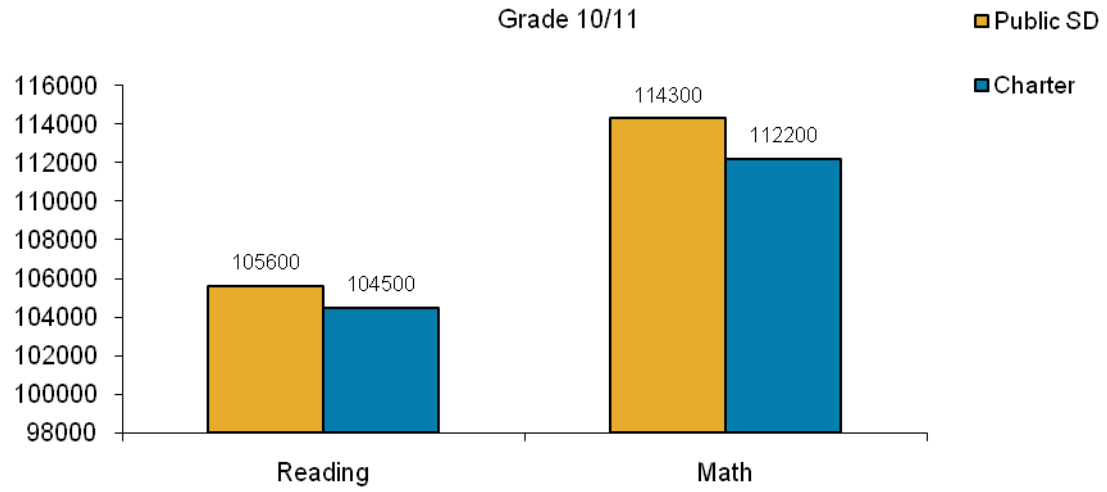


Figure 12 illustrates the differences between charter and public school districts in 2008. The t test results showing the mean differences between the two types of schools indicate that there are significant test score differences between charter and public schools. When comparing charter schools to public schools, there is consistency across subject areas and grade levels. In all cases examined, public school districts performed better on average than charter schools. The mean differences between charter and public school districts are statistically significant.

(3) Student demographics

Analysis of student demographic data is provided in Appendix 3. The demographic data demonstrates that white students comprise the vast majority of the student population in the database, followed by black students. There are 78.0 percent white students and 9.8 percent black students in the database. Also, the vast majority of students in the database are not LEP or Special Education students. Only 4.6 percent of the students are LEP and only 11.9 percent are special education. Also, a majority of students (76.1%) do not receive free or reduced lunch and, therefore, are not considered economically disadvantaged.

D. Discussion of Findings

Our research activities and findings to date have revealed a number of interesting points that should only be considered in light of the limitations of our work and implications for the future of Q Comp.

1. Limitations

Our data and findings are somewhat limited by a number of factors. First, the brief duration of our evaluation created general circumstances that kept our evaluation

within the realm of descriptive more so than correlational or predictive research for a number of reasons:

- With the exception of the analysis of MCA-II data described above, we were limited primarily to self-report data on perceptions of indicators and outcomes, rather than measurement of actual indicators and outcomes. Self-report data can tend to favor socially acceptable (i.e., positive or favorable) conclusions.
- There was not enough time to conduct pre- and post-testing or conduct longitudinal research, both of which could have increased our statistical power.
- There was little time to field test or otherwise vet our protocols and surveys with practitioners, though our instruments were approved by MDE.
- We were only able to spend one day in each case study site, as we visited more schools than initially expected.
- There was little time to assemble comprehensive participant contact lists in order to reach a broader group of practitioners and to collect data from them.
- Some of the study participants who gave feedback to represent experiences with Q Comp have not been involved with the program for long (less than one year).

We also understand that Q Comp implementation can take several years in order to 'trickle down' to student-level change that could be detectable by tests such as the MCA-IIs. Repeated mixed measures deployed through multiple observations over time and involving carefully chosen comparison groups would be necessary to assure any causal relationship between Q Comp implementation and specific changes to student performance. In addition to the limitations associated with the brief duration of our evaluation, we are somewhat concerned with using MCA-II data as a measure of correlating aggregate student outcomes with Q Comp implementation. The advantages of using MCA-II data are that it is available across multiple schools, represents a common indicator of aggregate student performance over multiple years, and is designed to detect broad shifts in school improvement efforts. However, the MCA-II is not designed to measure the kinds of more sensitive changes (e.g., 'value added') in student performance that one might expect to be present as intermediate indicators of Q Comp's impact on students. Ideally, a more sensitive assessment of student progress could be used for this purpose.

2. Implications for the future of Q Comp

Our evaluation also suggests several implications for the future of Q Comp. First, we recommend that MDE continues with a formative-summative, or possibly a summative evaluation in the future in order to address some of the limitations described above that stem from the short duration of our work. Ideally, this evaluation would be multi-year in order to maximize statistical power and the robustness of the research. Such an evaluation could utilize some of the current research questions, as well as additional questions that may arise from this evaluation or MDE's further thought about Q Comp

implementation and impact. Additional data that should be analyzed to get a more complete picture of Q Comp implications would include voluntary and in-voluntary teacher turnover, recruiting statistics indicating that more candidates are attracted to Q Comp schools, etc.

In addition to the mixed methods (including focus group interview protocols and surveys) that the Hezel team utilized since the fall of 2008, we suggest pilot testing and using the surveys that address some areas the current evaluation could not cover fully but could be of continued interest to MDE and Q Comp stakeholders, as well as other areas that we feel would benefit from further inquiry.

The commendations and recommendations that follow more thoroughly describe the implications of our findings for the future of Q Comp, as we have learned from our evaluation research.

COMMENDATIONS AND RECOMMENDATIONS

Here, we call upon the multiple data sources and findings described in the methods and findings sections above to present integrated commendations and recommendations for Q Comp. Each statement has been carefully crafted from a comprehensive and quantified approach to understanding all data collected during the fall of 2008 to the winter of 2009, and is organized by statewide and site-specific aspects of program implementation and impact.

A. COMMENDATIONS

1. Statewide implementation of Q Comp

The perception of Q Comp's impact on schools has overall been quite positive. Multiple data sources indicate there have been substantial changes to perceptions of school culture, instructional practices, schoolwide communication, focus, and management structure/practices of Q Comp schools.

Teachers, mentors, and coaches share a common view that the financial gains behind Q Comp are not a driving motivator for program participation. Feelings are somewhat mixed among teachers about whether the additional pay provided by Q Comp makes up for the additional work required. Even though teachers greatly appreciate the additional pay, they often feel as though doing smarter work that benefits students is simply part of their jobs. Teachers seem to feel that it would be inappropriate for someone in their profession to be motivated by money, while at the same time they indicate that basing this increased compensation on effort, as opposed to experience, is fair.

Minnesota's teachers seem to be more supported in their role of improving students' educational achievement since Q Comp's inception, compared to non-Q Comp teachers, though we cannot link these trends statistically. Conversations among heterogeneous groups of practitioners are more frequent and more focused on teaching and learning than ever before. This support is particularly valuable for new teachers in their first few years in the profession. Practitioners appreciate that resources are invested in multiple types of intermediate contributors to improved student performance (e.g., professional development) and not just raw performance outcomes as measured by state or other standardized tests.

Q Comp emphasizes all teachers growing professionally, which is consistent with MDE's goals for the school improvement process. Despite different degrees of emphasis on job-embedded professional development in TAP and Q Comp schools, both have an increased focus on student needs and teacher accountability, which appear to be outcomes of all professional development models described by educators who participated in our research. Q Comp has prompted teachers, regardless of

experience level, content area, school type, geographic location or other factors often targeted by educational initiatives, to reflect on lesson execution and try new strategies. While administrators and teachers sometimes disagree on the execution and impact of their models, all generally agree that Q Comp has added real value and depth to their professional development opportunities.

The flexible nature of Q Comp has been helpful to empowering local districts and schools with resources they can use to undergo the school improvement process. In Minnesota, each district can choose to pursue or not pursue Q Comp participation--it is not mandated. As districts apply, they may articulate plans and goals that are relevant to them, as long as the five components are addressed. MDE is not imposing how Q Comp should look, respecting that different districts have unique conditions and issues. Additionally, a district's Q Comp goals may be updated each year and if a district decides Q Comp is not working for them, it can later be voted down.

2. Districtwide implementation of Q Comp

The perception that instructional practices have improved under Q Comp is widespread within Q Comp schools. Administrators and teachers within Q Comp schools cite an increased willingness to revise the curriculum when necessary, more deliberate construction of lessons, increased use of proven instructional strategies, and better instructional delivery since implementing Q Comp. Additionally, teachers reported using student data to drive instruction more and described how they set clearer, more effective instructional goals now that their school participates in Q Comp.

Schools that have implemented Q Comp tend to view the program as an integration of each of the five components, and not simply a performance pay system. Indeed, the program does seem to be well-integrated, with all five elements reinforcing each other. However, non-Q Comp schools who have considered implementing Q Comp tend to view it as a vehicle for providing more money to teachers.

Onsite and meaningful professional development that is integrated into teachers' schedules under Q Comp facilitates teachers' participation in regular and more substantive, as well as school improvement, activites. Most participating teachers believe that under Q Comp, professional development has become much more valuable and relevant to teachers. Q Comp seems to have embedded a sense of personal accountability, as teachers are expected to take what they learn back to their classrooms and follow up with the results. In fact, in at least two schools, classroom application of professional development is integral to the Q Comp evaluations. One of the most commonly described positive changes in teacher attitudes since schools joined Q Comp is a renewed focus on their own development and teaching practices. Onsite and worthwhile professional development opportunities appear to be less available at non-Q Comp schools.

Teachers are sharing and collaborating around student needs and instructional practices more than they ever have since Q Comp was implemented. Schools are taking a more collaborative approach to helping all students under Q Comp rather than each teacher being responsible for his/her own students, which results in students experiencing consistency in goals and approaches as they move to different classrooms throughout the day and progress through the grade levels. Additionally, some districts described the professional development activities associated with Q Comp as bringing teachers from different schools together and enabling them to share ideas and best practices on topics such as proven instructional strategies, better instructional delivery, and classroom management. Related to increased collaboration was a stronger sense of community in Q Comp schools where teachers described feeling more collegiality with other teachers and a sense that "we're in this together". Q Comp gives teachers a common opportunity to get to know others beyond their own grade level, and to build relationships across the whole school. At Q Comp schools, teachers are sharing ideas during designated meetings, whereas at some non-Q Comp schools, teachers do not have time to share because they are too busy planning, grading, photocopying, etc. and the sharing that does occur is informal, such as in the hallway or lunchroom.

Participating schools praise Q Comp for providing a unifying focus and framework for collaborating around instruction, planning and professional development. Schools reported having common performance goals that provide clear expectations for both teachers and students under Q Comp. One school reported that its schoolwide performance goals and focus were on student achievement in reading and math; this focus could be seen in teachers' professional improvement plans, in teacher observation rubrics, and ultimately in performance pay. Another school reported that they had a unified focus on reading, with their teachers working more cohesively toward a single goal. These common goals, emphasized by Q Comp, provided a unity of purpose stemming from a collaborative, student-centered focus.

Teachers attribute greater consistency in the way that expectations for students are set and in the teaching strategies that are being used to their participation in Q Comp. Under Q Comp, there is more consistency and cohesion in how teachers teach, and therefore in each student's experience as (s)he travels from class to class. Almost all of the case study sites mentioned improved communication as a significant impact of Q Comp. This was discussed in the context of giving Q Comp administrators and teachers a common language/vocabulary to use (e.g., "there is a schoolwide continuum in which we talk using the same language"). Communication regarding students also improved, given the increased level of contact between teachers. Teacher meetings allow teachers to "know what specific students are struggling with" and then adapt accordingly. Some sites also mentioned a better flow of information from the administration to the teachers, because teacher leaders were a part of the school leadership team and also worked closely with non-leader teachers. Q Comp also provides a holistic structure that can unify other initiatives, causing schools to feel more

organized, and teachers to feel less as though there are too many things going on at once.

Generally, observations in Q Comp schools are viewed as constructive, whereas in non-Q Comp schools, observations are perceived to be more evaluative. In Q Comp schools, teachers are more comfortable with administrators and other teachers observing them and providing feedback in large part because they felt these observations are non-judgmental and non-threatening. Observations are seen as an opportunity to learn and share their expertise with one another. While not all administrators may take this approach, those that portray the non-judgmental approach to teacher observations are having great success.

In some Q Comp schools, there has been an overall shift from administrative decision making to teacher decision making, which administrators and teachers view favorably. Teachers described teacher leaders that are more accessible and approachable than administrators, while principals appreciate having qualified delegates to facilitate instructional leadership among a sometimes large teaching staff.

Teachers from Q Comp schools are generally familiar with their career ladder systems, or believe this information is widely available and easily accessible. The ways in which the career ladder systems are implemented vary from school to school but most teachers believe the ladder system is fair and offers teachers equal opportunity (particularly people at younger ages) because the primary means of advancement is to take a position of greater responsibility.

When Q Comp is implemented in schools, the following set of conditions best predict student achievement to increase:

1. When school administrators feel that their teachers consider Q Comp to be successful in their school.
2. When teachers feel that someone other than the principal is responsible for conducting Q Comp teacher evaluations/observations.
3. When standards-based lessons are *not* the main topic of professional development activities and discussions, but other topics are addressed.
4. When teachers feel that the addition of multiple career paths in their school will encourage them to remain in the teaching profession longer.

There is a significant and positive relationship between the number of years a school has been implementing Q Comp and student achievement and the number of years a school is in Q Comp with student academic achievement. This means as a school has more years of experience with Q Comp implementation, student achievement tends to increase. This relationship is slightly less pronounced at the lower elementary level.

B. RECOMMENDATIONS

In addition to our commendations, we recommend the following:

1. Statewide implementation of Q Comp

Target audiences for Q Comp awareness campaigns should include both districts and schools. Our evaluation revealed a general lack of awareness and common misconceptions about Q Comp among non-Q Comp districts. Principals and teachers felt not enough was being shared with them at the school-level. Further, non-Q Comp schools described a lack of job-embedded professional development activities and a need for greater coherence in their schools, seemingly without realizing that Q Comp could provide resources to support these activities. We offer the following strategies as suggestions for addressing this recommendation:

Strategy: Provide information about the variety of ways that districts and schools have designed programs to meet the requirements of specific elements of Q Comp. This could be done by showing examples of well developed applications. It would be particularly useful for teachers to understand the range of ways that Q Comp schools deliver incremental compensation to teachers, since there is a misconception that Q Comp schools link salary increases exclusively to test scores. The fact that professional development, teacher evaluations and schoolwide student achievement are also used to determine compensation may alleviate some of the concerns that non-Q Comp teachers have about the program.

Strategy: Better utilize the Q Comp informational conference offered by MDE each January. This event goes largely unrecognized among teachers. Non-Q Comp schools perceive that MDE offers good conferences and workshops, but that the Department does not have a good advertising system. These events represent an outstanding opportunity to discuss Q Comp benefits and share best practices and ideas. Principals say they don't see the information coming in and they "have to dig to find something that is offered."

Strategy: Provide information about what Q Comp does – and does not – involve. There are a number of different options for fulfilling the performance pay requirement of Q Comp, and MDE could consider developing examples of the most common models to give teachers an idea of the range of possibilities. This also means clarifying all the factors involved in the pay increase. Non-participating schools have concerns that Q Comp is all about student test scores. Urban school teachers in particular have reservations about financial rewards tied to a student population that is less likely to do well on tests or is transient. Convincing non-Q Comp schools of the value of the non-compensation aspects of Q Comp will be critical if more schools are to join the program.

Strategy: Encourage districts and schools that are interested in Q Comp participation to speak with or observe a school that is already successfully participating. This opportunity would provide interested schools with an explanation and visualization of how to "fit" Q Comp into teachers' schedules to reduce fears about more responsibilities and demands on their time.

Strategy: Highlight the benefits of Q Comp participation to school and district administrators. For example, Q Comp can provide rubrics for teacher observations and consistency in instruction.

Strategy: Indicate that changes in culture and thinking can be positive. Movement away from the traditional Steps and Lanes approach to compensation can be difficult and time-consuming for teachers and administrators. Even in Q Comp schools, the traditional Steps and Lanes system still remains prominent in teachers' minds – teachers still believe that years of experience and highest academic degree earned should play the primary role in determining base pay and a significant role in determining supplemental pay.

Strategy: Increase publicly available success stories about Q Comp implementation and impact. For example, teachers at non-Q Comp schools are often times hearing about negative experiences with Q Comp, rather than positive experiences. Publicize the benefits of participation to minimize misconceptions and confusion. Teacher leaders at successful Q Comp schools would be outstanding spokesmen about the benefits and challenges associated with implementing Q Comp. Schools can be overwhelmed with having too many initiatives. If they want to pursue Q Comp, they need to know either how to integrate it or what else can be taken off their list of responsibilities.

2. Districtwide implementation of Q Comp

In addition to the many positive aspects of Q Comp implementation detected during the evaluation, there were also several areas where we can offer recommendations for districts and schools to facilitate an improved transition to or implementation of Q Comp.

Monitor and respond to teachers' experiences with Q Comp. One participating case study school gave an example of an in-house survey that is conducted each year to assess teachers' opinions of how Q Comp is working in the school. Administrators use this data to make changes to meetings, agendas, and strategies. Paperwork for goal setting, for example, was seen as difficult or tedious, so this task has been modified.

Show teachers how to manage the aspects of Q Comp that are viewed as cumbersome. This is a good practice for all schools to consider so teachers do not vote

Q Comp down when it is time for a re-vote. Nearly all case study schools noted an increased workload for teachers due to Q Comp – more meetings, paperwork, and requirements tax teachers' available time. While there was some benefit in terms of time commitments with Q Comp, overall, it is fairly clear that the system requires more time of teachers than non-participating schools. The degree of comfort with this additional time required appears to be based on whether the teachers believe that they are being fairly compensated for their investments and how worthwhile they believe the investment of time is to them. Teachers often described taking on the additional responsibilities and worrying about how they will fit it all in later, which could lead to burnout.

Support each district in clarifying how Q Comp complements other district initiatives. Because each district may have particular mandates, initiatives, issues and priorities, teachers may be confused or overwhelmed about how Q Comp fits in. Consider minimizing teacher fears and frustrations by articulating what each of the Q Comp acronyms stand for, how initiatives can be integrated and which ones take priority over others.

Appendices

Appendix 1:
Glossary of Terms

- TAP: Teacher Advancement Program. TAP is more rigorous than Q Comp, therefore, any TAP school in Minnesota is also viewed as a Q Comp school by MDE. TAP is only offered in two districts in the state (one public and one charter). TAP has four elements (multiple career paths, ongoing applied professional growth, instructionally focused observations and additional compensation for teachers). Within Minnesota, TAP has been implemented earlier (starting in the 2004-2005 school year) than any Q Comp school (first available in the 2005-2006 school year). An instructional rubric created by the National Institute for Excellence in Training is used in TAP.

- Regression – A statistical model in which an outcome variable (or dependent variable) is predicted from one or more predictor variables (or independent variables). Regression assumes a causal relationship between the outcome variable and the predictor variables. Multiple regression is used when an outcome is predicted from a linear combination of two or more predictor variables. Stepwise regression is a method of multiple regression in which predictor variables are sequentially entered into the model (or equation) based on each predictor variable's semi-partial correlation with the outcome variable.

- Analysis of Variance (ANOVA) – A statistical test that determines whether group means differ significantly. A One-Way ANOVA is used if the groups are distinguished based on a single variable.

- t-tests – A form of ANOVA in which the means of only two groups are tested to determine whether they differ significantly. Independent t-tests are used when the two groups are from independent samples. Dependent t-tests are used when the two groups are from the same sample.

- Pearson Correlation – A measure of the strength of the linear relationship between two variables. A correlation coefficient can take any value from -1 to +1. A positive correlation means that as one variable changes, the other changes in the same direction. A negative correlation means that as one variable changes, the other changes in the opposite direction. A 0 correlation means that as one variable changes, the other doesn't change at all.

Appendix 2: Summary of MDE focus group interview findings

Q Comp Focus Group Interviews
Summary of Notes and Potential Implications for Project

Observation	Implications
Difficulties in Implementation and Areas for Improvement • Views differ about the most difficult component for districts to implement – pay and professional development were generally considered to be more difficult, though evaluations came up frequently as an area for potential improvement • The career ladder seems to be the easiest component to implement, partially because some schools/districts already had one in place • It is felt that the components should be more ***integrated*** (e.g., comp and professional development being influenced by evaluations). There is a strong desire for Q Comp to be a comprehensive, integrated program, and not just a career ladder or a single performance bonus	• We will need to delve relatively deeply into the issue of evaluations – how they are working and how they could be improved • Potential Survey questions o Are in-class teacher performance evaluations linked to the types of professional development that are focused on? Are evaluations linked to the level of performance pay received? o A - Did your school already have a career ladder in place before Q Comp was implemented? o How frequently are teachers evaluated in the classroom? o How could teacher evaluations be improved (greater frequency, greater breadth of topics, more targeted/focused, evaluations done by other teachers, better training for evaluators, evaluations by a greater number of individuals)? o How much time per week do teachers spend sharing ideas and collaborating with other teachers? o Which approach most closely describes job-embedded Professional Development at your school: Outside experts are brought in to provide professional development content; Teachers within the school are tapped to share insights and ideas as professional development content; A combination of these approaches

Perceptions of Q Comp • Perceptions of Q Comp have generally been positive from the teacher perspective. When teachers have not had control or input into the process, however, feelings can be more negative • Principals are generally supportive, though some may view Q Comp more negatively because it means they lose a certain amount of administrative control	• We will need to examine whether there are differences in positive/negative feelings about Q Comp between teachers and administrators at a given site • Potential Survey questions o Were teachers (i.e., all teachers or a subset) able to provide input about what the Q Comp system would look like? o How were Principals involved in the design process?
Measures of Success • Some potential measures of success include: increased collaboration, increased interest in improving teaching practices, renewed excitement in teaching, improved school culture, increased focus on using student data, increased focus on student performance in general, school is more attractive to teachers we want to hire, more pay linked to academic achievement, better student performance • We should also probe for potential unintended consequences	• Potential Survey questions o To what degree do you believe that Q Comp has done the following: ▪ Increased teacher collaboration ▪ Created collaboration that has given me new ideas and teaching strategies to use in the classroom ▪ Improved relationships between teachers ▪ Changed school culture for the better ▪ Improved teacher morale ▪ Renewed my excitement in the career of teaching ▪ Increased my interest in improving my teaching practices ▪ Improved the performance of our students ▪ Increased focus on student performance as a measure of school and teacher success ▪ Increased focus on using student data in the classroom ▪ Made our school more attractive to teachers we might hire ▪ Reduced the number of good teachers who have left

	our school to pursue other jobs or other teaching assignments ▪ Helped new teachers to feel more supported in their first year ▪ Helped new teachers to improve their performance in their first year ▪ Caused the best teachers in my school to receive the highest level of rewards (e.g., bonuses and/or salary increases)
Peer Review Process • The Peer review process is intended to examine how schools are implementing vs. the model and to provide schools with an opportunity to learn from one another. The focus group interviews seemed to be happy with the process	• Potential Survey questions o A - Are you satisfied with the feedback you receive from the MDE Peer Review process? o A – How could the peer review process be more valuable from your perspective?
Conference and Networking Meetings • The conference and networking meetings enable attendees to learn from one another and share ideas	• Potential Survey questions o A - Are you satisfied with the feedback you receive from the conference and networking meetings? o A - How could these sessions be more valuable?
Relationship to TAP • The components of the Q Comp system are modeled off of TAP, but they wanted more flexibility than TAP has to offer. They didn't want to mandate the TAP approach • There are a few Q Comp schools that use the TAP system	
Potential Changes to System • Schools generally do a good job of	

implementing – though there may be a few bad apples, there is no need to impose more rules and structure because of them • They are hesitant to make significant changes just yet. Potential structural changes include adding Principals or other school staff to performance pay systems and adding more structure/definition to the guidelines for performance pay	• May want to ask Principals whether they'd be receptive to performance pay for themselves • We should also delve into how principals were involved in the design process and how their role should change as a consequence of Q Comp? If principals' roles need to change significantly (e.g., shift from a "command and control" model to more of a "devolved leadership" model), how was this communicated and what leadership training/support was provided? Are principals accountable for successful Q Comp implementation?

Appendix 3: Student Performance Data Tables

3. Predicting Student Achievement

Stepwise regression reveals the combination of variables that together have a causal relationship with the variable that we wish to affect. Table 64 below illustrates the first iteration of regression using all 232 independent variables from the teacher and administrator surveys. The R coefficient is the multiple correlation coefficient and is cumulative down the list of variables, so the last variable in the list gives a total cumulative regression coefficient at the point where adding another variable adds nothing to the prediction. The corresponding R Sqaure is the percent of variance accounted for in MCA-II scores from this list of survey variables. The variables designated with an asterisk (*) in the below tables were also included in regression equations in either 2006 or 2007 or both. Each change in R Sqaure was tested for statistical significance using an F ratio. The contribution of each variable as it entered the equation was significant at p<.01.

Table 12. Regression Iteration 1: Reading, Grade 3, 2008

Variable	R	R square	
T6b	.181	.033	*
A19a	.225	.05	*
T16b_a	.242	.059	*
A2a	.255	.065	*
T13e_sup	.267	.071	
A9a	.279	.078	*
A8c	.288	.083	*
A13a_2	.300	.09	
A16b_b	.314	.099	*
A6b	**.398**	**.158**	

Table 13. Regression Iteration1: Math, Grade 3, 2008

Variable	R	R Square	
T6a	.164	.027	*
A1a	.196	.038	*
A19a	.213	.045	
T2d	.231	.053	
A6e	.252	.063	*
T22f	.269	.072	
T21f	.292	.085	*
A2d	.319	.101	
T6e	**.526**	**.276**	

Table 14. Regression Iteration1: Reading, Grade 8, 2008

Variable	R	R Square	
T6b	.188	.035	
T16b	.235	.055	
A19a	.255	.065	
A2a	.273	.075	
A16a	.308	.095	
A8c	.325	.105	
T20	**.425**	**.181**	

Table 15. Regression Iteration 1: Math, Grade 8, 2008

Variable	R	R Square	
T21e	.154	.024	*
T21b	.200	.040	
A6c	.228	.052	
A9b	.241	.058	
T6a	.248	.061	
A4d	.259	.067	
A4c	.269	.072	
A16b_b	.281	.079	
A13b_2	**.426**	**.182**	

Table 16. Regression Iteration 1: Reading, Grade 10, 2008

Variable	R	R Square
A1a	.150	.022
T6a	.209	.044
A5h	.240	.057
A21b	.262	.069
T21e	.275	.076
A7	.284	.081
T5j	.291	.084
A5i	.297	.088
T5d	.302	.091
T22a	.305	.093
T4c	.308	.095
A16b_b	.311	.097
A5j	.333	.111
T19b	**.433**	**.187**

Table 17. Regression Iteration 1: Math, Grade 11, 2008

Variable	R	R Square	
T8a	.167	.028	
T6a	.205	.042	
A4b	.258	.067	
T12	.273	.075	
A6e	.285	.081	
T16c	**.300**	**.090**	

The second iteration of regression equations were conducted to determine if additional analyses from 2006 and 2007 would change the variable combinations that best predict student achievement. Table 18 illustrates how many regression equations in 2006 and 2007 included which of the 11 variables from 2008 regressions. In this way we can eliminate some of the variables that predicted only in 2008 and not in the previous two years. The asterisks (*) in Table 18 indicate the number of regression equations in 2006 and 2007 that included that particular variable.

Table 18. Regression Iteration 2: Inclusion of 2006 and 2007

Variable 2008	2007	2006
A19a	*	
T6a	***	*
T21f		
T6b	*	*
T16b_a		*
A2a	*	
A9a		
A8c	**	
A16b_b	**	
Ala	*	*
T21e	*****	*****

All 232 variables were entered into regression equations for both subjects and for three levels (grades 3, 8 and 10/11) for 2006 and 2007, just like they were for 2008. The results indicated that nine out of the 11 original variables from the 2008 analyses were also included in at least one regression equation in these additional analyses.

The third iteration of regressions was performed on these nine remaining variables. Table 19 below shows the nine variables identified from the second iteration. The numbers in the table refer to the number of regression equations that included each variable as a contributor to MCA-II variance for each of the three years. Variables A1a, T6a, T21e and T16b_a were included in the greatest number of equations across the years and, therefore, are the best combination of predictors of student success across subjects, across grade levels and across years.

Table 19. Regression Iteration 3: Number of Regression Equations by Year

Variable	2008	2007	2006	Number of Equations
A19a	1			1
Ala	2	4	4	10
A2a		1	2	3
T6a	3	2	4	9
A8c				0
T21e	2	4	5	11
T16b_a	2	2	2	6
A16b_b				0
T6b				**0**

Table 20 below displays Pearson bivariate correlations between these four survey variables and MCA-II scores across subject and grades in 2008. This needed to be done to determine the direction of the correlation between the predictor variables and student achievement. The bivariate correlations in Table 20 are very low, yet statistically significant due to the high N. All correlations for Ala and T16B_a are positive and all correlations for T6b and T21a are negative.

Table 20. Correlation Matrix Between Final Predictor Variables and MCA-II

Variable	R,Grade3	M,Grade3	R,Grade8	M,Grade8	R,Grade10	M,Grade11
A1a	+.091**	+.102**	+.066**	+.089**	+.140**	+.120**
T6a	-.076**	-.141**	-.102**	-.084**	-.096**	-.151**
T21e	-.074**	-.089**	-.123**	-.099**	-.079**	-.142**
T16b_a	+.06**	+.198**	+.132**	+.101**	+.122**	+.079**
N	**11,655**	**11,131**	**12,824**	**12,547**	**13,295**	**12,471**

**p<.01

4. Relationship between Q Comp Years to Student Achievement

Bivariate Pearson correlations enable us to understand the relationship between the number of years involved in Q Comp and student achievement. Table 21 illustrates the correlations of years in Q Comp to MCA-II scores. All computations are for 2008.

Table 21. Correlation of Years in Q Comp and MCA-II

Subject/ Grade	Correlation	P value	N	Subject/ Grade	Correlation	P value	N
R/3	.093	.000**	16212	M/3	.039**	.000	15124
R/4	.07	.000**	16141	M/4	.058**	.000	15231
R/5	.06	.000**	16509	M/5	.028**	.001	15613
R/6	.09	.000**	16693	M/6	.077**	.000	15911
R/7	.065	.000**	16943	M/7	.072**	.000	16227
R/8	.083	.000**	17432	M/8	.06**	.000	16704
R/10	**.05**	**.000****	**17696**	**M/11**	**.015***	**.048**	**16310**

*p<.05
**p<.01

5. Charter and Publc Schools

Oneway ANOVAs and t-tests are used to test the mean differences between charter and public schools. Table 22 documents the differences between charter and non-charter schools in 2008.

Table 22. Charter vs. Public School Districts

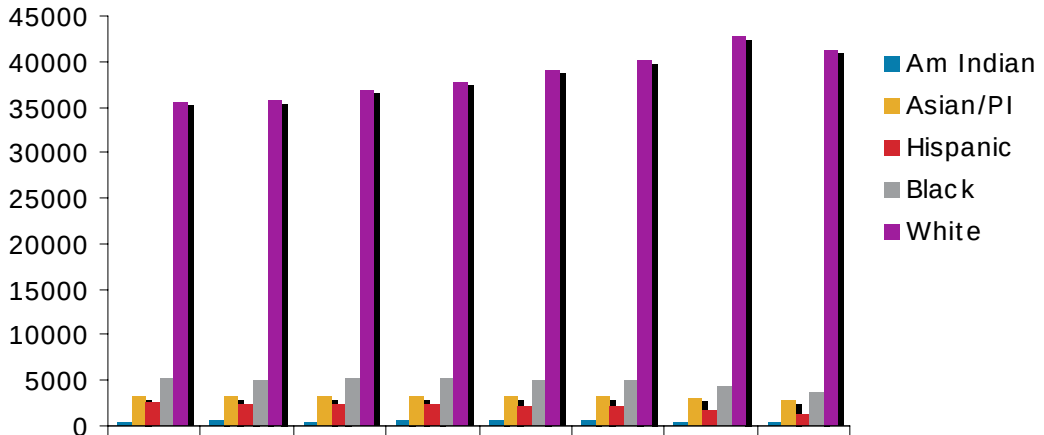
Subject, Grade		Public SD	Charter Mean	T value
R, Grade 3		36531	35733	15.1**
N		45816	1420	
M, Grade 3		35994	35409	17.0**
N		44720	1351	
R, Grade 8		85493	84659	16.9**
N		50688	847	
M, Grade 8		85277	84191	19.1**
N		49925	727	
R, Grade 10		105600	104500	24.5**
N		51526	1017	
M, Grade 11		114300	112200	32.1**
N		48588	933	

**p<.01

6. Student Demographics

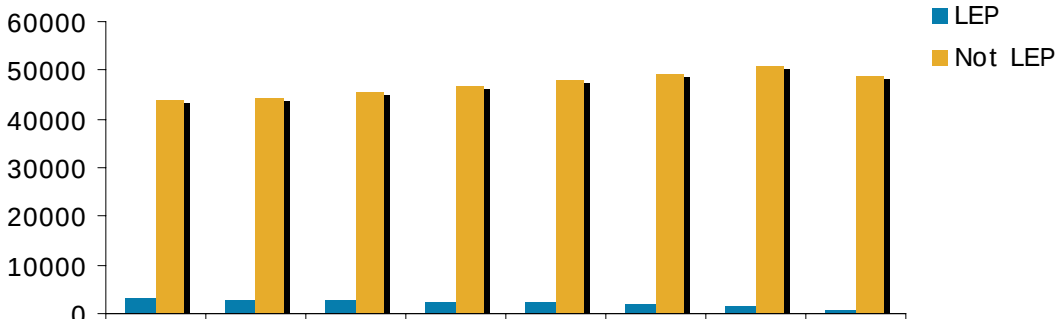
The figures below show demographic breakdowns from the database by ethnicity, students with limited English proficiency, special education students, and students receiving free and reduced lunch. This data is reported by grade level for all three years – 2006, 2007, and 2008.

Figure 13. Ethnicity



	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10	Grade 11
Am Indian	529	567	539	600	618	640	502	467
Asian/PI	3387	3332	3309	3364	3324	3335	3154	2870
Hispanic	2637	2479	2399	2378	2241	2200	1775	1370
Black	5190	5089	5169	5178	5143	5084	4332	3623
White	35487	35850	36863	37703	39002	40246	42742	41202

Figure 14. Limited English Proficient



	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10	Grade 11
LEP	3327	2973	2680	2563	2280	2143	1593	830
Not LEP	43903	44344	45599	46660	48048	49362	50912	48700