

Massachusetts Teaching, Learning and Leading Survey

*Creating School Conditions
Where Teachers Stay
and Students Thrive*



The Massachusetts Teaching, Learning and Leading Survey Coalition

The Massachusetts Teaching, Learning, and Leading Survey (TeLLS) is being conducted by a coalition of education, government, foundation and business organizations and individuals, all of whom believe that it is critically important to listen to educators' views when shaping school improvement strategies.

- Governor Deval Patrick
- Massachusetts Teachers Association
- American Federation of Teachers—Massachusetts
- Commonwealth of Massachusetts
- National Education Association
- Massachusetts Association of School Committees
- Massachusetts Association of School Superintendents
- Massachusetts Secondary School Administrators' Association
- Massachusetts Elementary School Principals Association
- Massachusetts Business Alliance for Education
- Rennie Center for Education Research and Policy
- The Boston Foundation
- Nellie Mae Education Foundation

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Most importantly, we would like to extend our sincere appreciation to the approximately 40,000 dedicated educators who were willing to share their time and input while they are striving to ensure that Massachusetts students achieve at the highest levels. We hope this data and these findings will help you as you continue in your efforts to make your school a great place to teach and learn.

Any errors of facts or interpretation are solely those of the authors.

Executive Summary

In March 2008, over 40,000 Massachusetts educators—teachers and administrators—responded to the Teaching, Learning and Leading Survey (TeLLS) that assessed whether positive teaching and learning conditions are present in schools across the Commonwealth. The Mass TeLLS Coalition, representing education, government, foundation and business organizations, sponsored the survey, conducted by the New Teacher Center at the University of California at Santa Cruz.

Mass TeLLS represents the first time that a broad coalition of stakeholders asked school-based educators about the conditions of their work. They came together for one common reason: educators' teaching and leading conditions are their students' learning conditions. Positive teaching, learning and leading conditions—ranging from adequate supplies, sufficient time in the classroom to an atmosphere of trust and respect within a building—affect student learning. Staff turnover is reduced, morale is improved and educators' effectiveness is enhanced when conditions are favorable.

Massachusetts educators provided their views about particular teaching and learning conditions involving readiness, leadership, support for professional practice and workload. An estimated 51 percent of public school educators in Massachusetts took the survey. More than 250 districts and over 1,200 schools (almost two-thirds in each instance) had a response rate (at least 40 percent) sufficient to receive a data report.

Some studies attempt to quantify teaching conditions—for example, by identifying how many computers there are per student, how many students are in each class and how many minutes each day teachers are given to collaborate. This survey takes a different approach. It was designed as a perceptual survey that attempts to get at educators' views on these conditions in their schools.

These perceptions matter because they influence teachers' future employment plans and school wide performance, which in this report is measured by results from the Massachusetts Comprehensive Assessment System in both math and English Language Arts. Consider the following findings:

1. Massachusetts educators are committed to their students and receive support in many areas. Overall, educators have a strong commitment to their work and to their schools. Seventy-seven percent believe that their schools are good places to work and learn, and 83 percent of teachers plan to remain working at their current schools. Educators report that the faculty is committed to helping every student learn, that the curriculum taught is aligned to the state's curriculum frameworks and that teachers are held to high professional standards for delivering instruction.

Massachusetts educators are committed to assisting students and receive support in many areas.

2. Educators report a need for additional support, particularly around leadership and decision making.

- Teachers do not feel included in decision-making processes. Less than half of educators (46 percent) believe that they are engaged in decision making in a meaningful way. Just over half (55 percent) feel that they are recognized as educational experts, and slightly less than two-thirds (63 percent) think that they are trusted to make decisions about instructional issues.
- Teachers believe that there is insufficient instructional time for them to be successful with all their students. Only 39 percent of educators believe that they have enough instructional time to meet students' needs. Just over a third (37 percent) think that there is enough instructional time to complete the curriculum.
- Educators are concerned about the quality of the physical school environment. About half (49 percent) feel that the school environment is environmentally healthy. The same percentage agrees that their schools are clean and well-maintained.
- A majority of teachers do not feel that school leadership, broadly defined, is responsive to their concerns in the areas that are important to them. Less than half believe that school leadership addresses their concerns about leadership (45 percent), teacher empowerment (46 percent) and time (47 percent).
- Teachers report influences outside the school affect their ability to be successful with all students. Student attendance is most frequently cited as a factor that affects student learning. Two-thirds of all educators feel that the achievement of their students is affected by excessive absenteeism and tardiness.
- Principals do not feel that they have sufficient time, particularly for instructional leadership work. Only three out of ten principals report that they have sufficient time to focus on instructional leadership issues. About 73 percent indicate that they spend less than three hours per week on instructional planning with teachers, and just over 40 percent spend less than three hours observing and coaching teachers. However, about 60 percent of principals report spending more than ten hours per week on administrative duties.

Teaching conditions have a significant impact on school wide performance on MCAS at all levels.

3. **Teaching conditions have a significant impact on school-wide performance on MCAS at all levels.** Providing educators with strong leadership, sufficient resources and support and a manageable workload are important strategies for improving student performance.

- In particular, at the middle and secondary school levels, workload factors—such as the extent of curriculum alignment and the time available for student assessment—showed a significant relationship to student achievement.

- At the elementary level, factors relating to leadership (shared decision making and teacher empowerment), readiness (external factors, such as, student poverty, violence, language issues and absenteeism) and support for professional practice (facilities, resources and professional development) proved to be important to student achievement.
- These teaching conditions had at least as much influence on student performance as student-teacher ratios and the percentage of teachers assigned to subjects within the scope of their licenses.

4. Teaching conditions, particularly leadership, strongly influence teachers’ plans about where to work. Teachers with positive perceptions about their teaching conditions are much more likely to want to stay at their current schools. Positive perceptions about school leadership and teacher empowerment were particularly important. Two to three times as many teachers who say they want to remain in their current schools agreed with positive statements about school leadership and teacher empowerment than did teachers who want to remain in the profession but move to a different school. For example, while only about 20 percent of “movers” agreed “there is an atmosphere of trust and mutual respect in this school,” nearly two-thirds (65 percent) of “stayers” agreed with the same statement.

5. Not all educators view teaching conditions similarly. Educators’ years of experience, school level taught and role within the school all influence whether they report positive teaching, learning and leading conditions.

- Teachers and principals perceive conditions differently, particularly in the areas of teacher empowerment and school leadership. Principals were nearly twice as likely as teachers to agree that the school leadership consistently enforces rules for student conduct, that teachers are meaningfully involved in decision making about educational issues, and that school leadership shields teachers from disruptions, allowing teachers to focus on educating students. Only four out of ten teachers agree that teachers are meaningfully involved in decision making about educational issues compared to nine out of ten principals. About eight out of ten principals report that there are effective processes for making group decisions and solving problems, almost twice the rate at which teachers agree.
- Elementary school educators are generally more positive about important teaching and learning conditions in their schools than are middle and secondary school educators, particularly in the areas of facilities and resources, professional development, school leadership, and empowerment. However, elementary teachers are more likely to say that they do not have sufficient instructional time. Only one-third of elementary educators and one-half of secondary teachers say that they have sufficient time during the regular school day to meet the educational needs of all students and complete the expected curriculum during the year.
- On most questions, teachers in their first year are somewhat more positive than their colleagues about time, empowerment, leadership, and professional development issues.

Teaching conditions, particularly leadership, have the strongest influence on teachers plans about where to work.

Teachers with four to ten years of experience tend to be the most negative about their teaching conditions.

6. Educators in schools in urban areas and those serving low-income children are less likely to report positive teaching and learning conditions.

- Educators in the highest-poverty schools are far less likely to note support from families and the communities in which they teach. Only one in six educators in high-poverty schools agree that families help students achieve educational goals compared to three-quarters in low-poverty schools. One-third of teachers in high-poverty schools agree that they are supported by their community compared to two-thirds in low-poverty settings. Educators in high-poverty schools were much less likely to agree that their school environment was physically safe and environmentally healthy and were less likely to note that they had necessary resources in the areas of communication technology and instructional materials. Collectively, these trends appear to influence overall perception of the schools, with 85 percent of educators in low-poverty schools agreeing that their schools are good places to work and learn compared to 68 percent in those serving high-poverty populations.
- Poverty, language and violence outside of the school have an effect on student ability to learn, according to survey respondents. Urban educators were about twice as likely as suburban or rural educators to note that poverty (82 percent, 41 percent and 48 percent respectively), violence (69 percent, 41 percent and 26 percent), and language (84 percent, 39 percent and 32 percent) have an impact on the ability of students to learn in their schools. Suburban educators were 2.5 times more likely than urban educators to note that families help students achieve educational goals in the schools, and only one-quarter of urban educators agreed that this is true in their schools. Further only one-third of urban educators believe that teachers are supported by the community as compared to more than half in rural (54 percent) and suburban (57 percent) settings.

Poverty, language and violence outside of the school have an effect on student ability to learn in Massachusetts cities.

7. Principals who report district supports and engagement are better able to provide positive teaching conditions. Principals in Massachusetts are generally positive about the district support they receive to enable them to create positive teaching conditions in their schools; principals who report more positive conditions themselves are able to provide better teaching conditions for their faculty in some areas. In schools where principals reported that they had a sufficient number of licensed staff, the faculty was significantly more likely to agree that they had reasonable class sizes, sufficient resources and that their schools were good places to work and learn.

Recommendations

From these findings and other analyses, the following recommendations for Massachusetts policymakers, stakeholders and educators are offered to enhance continued efforts to improve teaching, learning and leading conditions.

Recommendation 1. Ensure that Teaching Conditions Are a Part of Proposed Reform Efforts to Recruit and Retain Teachers

- Improve teaching conditions as a key strategy to attract and retain qualified educators to work in hard-to-staff schools.
- Ensure that every new teacher is inducted into the profession.
- Consider areas where teachers can be appropriately engaged in decision making and ensure they have the knowledge and skills necessary to make the right decisions.
- Create leadership opportunities for teachers in decisions that influence their classrooms, schools and profession.
- Ensure that policies and practices are in place to make clear how decisions will be made and to communicate the results and rationale clearly to faculty.
- Include non-financial incentives that address teaching conditions as part of efforts to recruit and retain teachers in hard-to-staff schools.

Recommendation 2. Help School Leadership Establish Positive Teaching and Learning Conditions in Every School

- Create clear expectations and/or standards for what schools leaders need to know and be able to do in recruiting and retaining teachers as well as establishing and maintaining positive teaching and learning conditions.
- Require preparation programs for school leaders to include coursework and field experiences that will develop the skills needed to create positive teaching and learning conditions, to build supportive school climates, and to establish professional communities.
- Provide professional development for principals and other school leaders that supports efforts to create positive teaching and learning conditions.

Recommendation 3. Close the Teaching Conditions Gap by Targeting Resources and Engaging Communities in Schools

- Provide resources specifically for high-poverty schools to ensure positive teaching and learning conditions.
- Involve the community in the analysis and improvement of teaching and learning conditions.

Massachusetts schools should ensure that every new teacher is inducted into the profession.

- Document successful community engagement practice in schools serving high-poverty populations and share findings with other schools and districts.

Recommendation 4. Support Schools in Understanding and Improving Teaching Conditions

- Create standards or guidelines for teaching conditions so all educators understand the key elements of building a positive school climate.
- Ensure that teaching conditions data be used as part of the school improvement planning process.
- Create incentives for schools to develop and implement plans based on multiple data sources to improve teaching conditions.

Recommendation 5: Use TeLLS and Other Mechanisms to Collect Educators' Views on Teaching and Learning Conditions to Inform Local and State Human Capital Decisions

- Regularly assess and monitor progress on critical conditions identified as having a significant impact on expected teacher retention and student learning.
- Use data collected at the school, district and state policy levels to inform future school improvement plans, as well as statewide policy debates.
- Establish an oversight committee of policymakers and practitioners to coordinate the survey, and the design and implementation of strategies to improve teaching conditions.

The Mass TeLLS data is a compilation of the voices of the dedicated educators those who know schools best.

The Mass TeLLS data are a compilation of the voices of those who know schools best—the dedicated educators working in them each and every day. With over half of the Commonwealth’s educators responding to questions about what they want and need to be successful and remain teaching, it is time to listen.

These findings and data across schools and districts should be used to begin conversations about why educators’ perceptions exist, and not to make high-stakes decisions for administrators or staff. These conversations should begin at the school level and go all the way to the State House. Positive teaching conditions, where educators are supported and empowered, are essential to creating schools where teachers and administrators want to work and where students thrive.

Introduction

Policymakers, practitioners, and researchers have long realized that teaching quality is the most important variable for the success of students (Clotfelter, Ladd & Vigdor, 2007; Darling-Hammond & Youngs, 2002; Hanushek, Rivkin & Kain, 1998; Murnane & Phillips, 1981; Sanders & Rivers, 1996). Supportive school environments, where educators are valued, trusted, and have the time and ability to collaborate to improve instruction, are necessary to enable teachers to be successful. It is becoming increasingly clear that the workplace can encourage or constrain good teaching (Byrk & Schneider, 2002; Johnson and the Project on the Next Generation of Teachers, 2004; McLaughlin & Talbert, 2001; Rosenholtz, 1989). Yet, policymakers have paid little attention to the working conditions in schools (Hanushek & Rivkin, 2007) that are so critical to teacher retention, teacher and student success.

A growing body of research clearly demonstrates that assessing, understanding, and improving such conditions can have many benefits:

- Improved Student Learning.** Teachers' success with students is facilitated by a positive school context, such as support from leadership and being in a collaborative working environment. Thus, improving the conditions of the school as a workplace has the potential to increase the capacity of schools to serve all students (Johnson, 2006). Several statewide studies have demonstrated that the presence of positive work environments is significantly connected to increased student achievement (Hirsch & Emerick, 2007, 2006). In particular, having strong, trusting relationships—both internally and externally (Byrk & Schneider, 2002)—and supportive school leadership are essential to improving student achievement. A study of 88 urban public schools demonstrates the importance of communication networks for improving student achievement: in schools where teachers talked to each other the most about their jobs and where the principals did the best job of staying in touch with the community, students had noticeably higher reading and math test scores. These communication networks had a greater impact on test scores than the experience or credentials of the staff (Leana & Pil, 2006).
- Improved Teacher Efficacy and Motivation.** Teachers' perceptions of their schools are their reality; therefore, teachers' behavior and efficacy are a direct result of those views. In a recent literature review on teaching conditions, Leithwood (2006) found that teacher efficacy is significantly shaped by teaching conditions and that the degree of teacher burnout and teacher engagement are critical to classroom performance and job satisfaction. He notes, "What teachers actually do in their schools and classrooms depends on how teachers perceive and respond to their working conditions."
- Improved Teacher Retention.** The "character" of the school workplace is extremely important in determining who enters teaching and who stays (Berry, Smylie & Fuller, 2008; Hanushek, Kain & Rivkin, 1999; Johnson & Birkeland, 2003; Ingersoll, 2001, 2004). Teachers who leave schools cite dissatisfaction with support from administrators, dissatisfaction with

Policymakers, practitioners, and researchers have long realized that teaching quality is the most important variable for the success of students.

workplace conditions (e.g., the inadequate supply of necessary materials, lack of collegial opportunities, little opportunity to participate in decision making, low salaries), and an opportunity for a better teaching assignment, as the main reasons why they move to another school or leave teaching (NCES, 2004; Ingersoll, 2001; Johnson, Berg, & Donaldson, 2005; Marvel et al., 2006; Weiss, 1999). Teachers indicate that a positive, collaborative school climate and support from colleagues and administrators are the most important factors influencing whether they stay in a school (Hirsch & Emerick 2007, 2006a,b). Research has linked teachers' negative perceptions of working conditions with their exit from schools. Factors such as facilities, safety, and quality of leadership have a greater effect on teacher mobility than salary (Hanushek & Rivkin, 2007). In particular, it appears that supportive school leaders who create trusting environments where educators are engaged in decision making impact the latter group's decisions about where to work (Hirsch & Emerick, 2007, 2006a,b).

- **New Recruitment Strategies to Entice Educators to Work in Hard-to-Staff Schools.**

Teachers who are willing to teach in hard-to-staff schools indicate that strong supportive school leadership, an engaged community and parents, safety, and working conditions are all important factors when selecting where to work. Further, when Alabama educators were asked about incentives that would attract them to schools, non-financial incentives, such as guaranteed planning time and reduced class sizes, were found to be more powerful recruitment incentives than salary supplements and bonuses (Hirsch, 2006). Improving teaching conditions could also bolster the teacher supply pool because many educators who left due to poor conditions may come back if such conditions were enhanced. A survey of 2,000 educators from California found that 28 percent of teachers who left the profession before retirement indicated that they would come back if improvements were made to teaching and learning conditions. Monetary incentives were found to be less effective in luring them back (Futernick, 2007).

Positive teaching conditions, where educators are supported and empowered, are essential to creating schools where teachers want to work and students can thrive.

To help ensure that all students can learn, teachers need to work in schools designed for their success. Positive teaching conditions, where educators are supported and empowered, are essential to creating schools where teachers want to work and students can thrive.

About the Survey

To assess whether these conditions are present across Massachusetts, Governor Deval Patrick, the Commonwealth and a coalition of numerous educator and stakeholder groups¹, worked with the New Teacher Center at the University of California Santa Cruz, to conduct a survey of teaching, learning and leading conditions. The survey, which was administered in February and March 2008, was sent to all school-based, licensed educators throughout the Commonwealth. The Massachusetts Teaching, Learning and Leading Survey (Mass TeLLS) provides data to individual schools and districts about whether educators have the supportive school environments necessary for them to continue working and be successful with students. By hearing directly from educators who intimately understand teaching conditions, policymakers will have the opportunity to make

data-driven decisions to develop policies that make Massachusetts schools great places to teach and learn. This survey data is unique in that it represents the perceptions of those who understand Massachusetts teaching, learning and leading conditions best—the educators who experience them every day.

Mass TeLLS included approximately twelve² broad question areas with multiple subparts, broken into eight major sections: time, facilities and resources, empowerment, leadership, professional development, school context and readiness, curriculum and instruction, and new teacher support. There were also questions covering the demographics of respondents, such as ethnicity, gender, educational background, position held and years of experience. All school-based licensed educators were surveyed including teachers, principals, vice principals, and other education professionals (e.g., school counselors, psychologists, social workers, library media specialists, etc.). Most of the questions were asked of all respondents, though some were asked only of specific groups. Only teachers in their first three years and those indicating that they served as mentors were asked about induction.

Further, a set of questions about district support in creating positive teaching conditions was asked specifically of principals and a set of questions concerning supports for new administrators was asked of administrators in their first three years.

The survey instrument was developed by the New Teacher Center with input and guidance from a subcommittee of the TeLLS coalition group. A set of core, validated questions from previous teaching conditions surveys, drawing primarily upon the North Carolina Teacher Working Conditions Survey was utilized, while others were developed specifically for the Commonwealth (Appendix B). Changes specific to Massachusetts include:

- Moving questions traditionally asked in the School Leadership section to a newly crafted School Context and Readiness section that includes new questions designed to assess the perception of educators as to which circumstances external to the school influence student ability to learn.
- Creating a Curriculum and Instruction section designed to assess the alignment of curriculum to standards and the use of the Massachusetts Comprehensive Assessment System (MCAS) data to improve instruction.
- Adding a multi-part question about the effectiveness of incentives on deciding to work in “hard-to-staff” schools.

Information on the validity and reliability of the survey instrument is documented in Appendix B.

This survey data is unique in that it represents the perceptions of the educators who experience teaching conditions every day.

About the Respondents

All school-based licensed educators in public schools in the state of Massachusetts received an access code to take the online survey. Approximately 40,000 Massachusetts educators (51 percent) responded to the Mass TeLLS Survey. This includes responses from 35,272 teachers, 876 principals, 541 assistant principals, and 3,340 other education professionals.

Data is now available for 1,205 schools (67 percent) and 250 districts and charter schools, providing critical information for making local and state level decisions to improve Massachusetts schools. Data is only released at the school level if at least 40 percent of the school faculty and a minimum of five faculty members responded to the survey. Results are available at www.masstells.org. Schools with a sufficient response rate received a password to access their data for their own school improvement planning. Passwords are slated to be removed when this report is issued in January with data publicly accessible. The Massachusetts Legislature, at the request of Governor Patrick, has appropriated resources to the Massachusetts TeLLS Coalition to work with local educators to develop a model to assist districts in understanding and utilizing this data to improve teaching environments.

Approximately 40,000 Massachusetts educators (51 percent) responded to the Mass TeLLS Survey.

Some information about the approximately 40,000 respondents

- Over 5,000 teachers (13 percent) are in their first three years of teaching. About one-quarter of respondents (26 percent) have between 11 and 20 years experience and 30 percent have been in education for more than 20 years.
- Two-thirds of survey respondents have worked in their current school for 10 years or less.
- About nine out of ten (92 percent) responding educators are white (92 percent); eight out of ten (79 percent) are women; and seven out of ten (72 percent) have at least a Master's degree.

The 1,205 schools with sufficient response rate appear to be representative of schools in Massachusetts, similar on a variety of important indicators that could influence the presence of teaching conditions (Table 1).

Table 1. Representativeness of Schools with Mass TeLLS Survey Results

Areas	Schools with Mass TeLLS Data	Total Schools in Massachusetts	Percent of Mass TeLLS Schools	Percent of Total Schools in Massachusetts
Urbanicity				
Urban	458	688	38.0%	38.3%
Suburban	596	884	49.5%	49.2%
Rural	151	226	12.5%	12.6%
TOTAL	1,205	1,798	100%	100%
Poverty (Eligible for Free and Reduced Lunch)				
Quartile I (Low poverty—0–7.5% FRL)	297	450	24.7%	25.2%
Quartile II (7.51- 19.45 % FRL)	309	442	25.7%	24.8%
Quartile III (19.46 – 53.12% FRL)	296	446	24.6%	25.0%
Quartile IV (High poverty— 53.13–100% FRL)	301	446	25.0%	25.0%
TOTAL ³	1,202	1,784	100%	100%
School Size (Number of School-based Licensed Educators)				
Small (Less than 27 educators)	300	465	24.9%	25.9%
Mid Size I (28 to 39 educators)	312	445	25.9%	24.7%
Mid Size II (40 to 56 educators)	308	441	25.6%	24.5%
Large (More than 57)	286	447	23.7%	24.9%
TOTAL	1,205	1,798	100%	100%

Schools with at least a 40 percent response rate on the Mass TeLLS Survey vary by no more than 2 percent compared to the total state population of schools in the areas of the poverty of students served, urbanicity, and size. As will be discussed later in the report, urbanicity and poverty are significant influences on the perception of teaching conditions. The similarity in context between respondents and all educators in Massachusetts provides confidence in extrapolating the findings from Mass TeLLS to the Commonwealth as a whole.

About the Report

With the voice of more than 40,000 educators on numerous questions about conditions in their schools, presenting findings and considering their meaning is complex. The report is divided into six major sections.

First, teaching conditions in Massachusetts are explored. General trends are highlighted in order to provide an overview of how educators perceive their school environments. These findings are put in a national context as well given that similar survey items were asked of educators in seven other locations by NTC during the 2007-2008 school year. While the original survey had seven

sections, these have been collapsed into four areas that are used throughout our analyses: readiness, leadership, support for professional practice and workload.

Second, the report provides evidence as to the importance of these teaching conditions by exploring connections between survey results and student performance. Building from quartile analyses and correlations, multivariate regression models are presented to isolate and understand the connections between the presence of teaching conditions and school-level performance on the Massachusetts Comprehensive System Assessment (MCAS) on the Composite Performance Index (CPI) in English Language Arts and Mathematics for elementary, middle and secondary schools.

The report documents how perceptions of teaching conditions vary across different groups of educators working in different contexts.

Third, similar models are presented on the connection between teaching conditions and teacher retention. While school-level turnover data was not available, teachers were asked on the survey about their future employment plans. Statistical models are presented that examine the impact of teaching conditions and other factors such as students served, teacher background and school characteristics on whether teachers want to remain working in their current schools.

Fourth, with an understanding of the status of teaching conditions and their importance for student learning and teacher retention, the report documents how perceptions of these conditions vary across different groups of educators working in different contexts. Disparities in perception are explored based on years of experience, school level, urbanicity, poverty of students and accountability status.

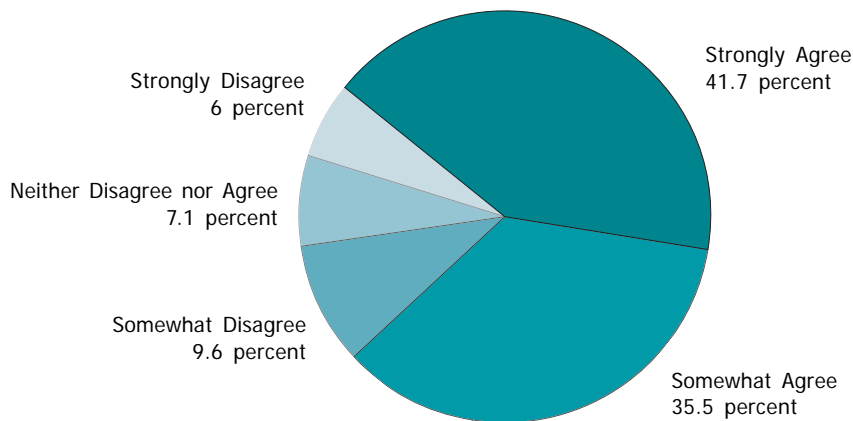
Fifth, the results of survey questions asked only of principals about district level support for schools in creating positive teaching and learning environments are presented. Differences in the perception of teachers about their conditions for those working in schools where principals agree that they receive district support are shown.

Finally, the report concludes with some broad recommendations that address the findings in the report, calling for attention to these important issues and efforts to support all educators to create positive teaching, learning and leading conditions in schools across Massachusetts.

Trends on the Presence of Teaching Conditions in Massachusetts

Previous research demonstrating the impact of teaching conditions on teacher retention and student learning appears to bode well for Massachusetts as, overall, educators across the Commonwealth report that their schools are good places to work and learn. Generally, Massachusetts educators are satisfied with their current workplace. **Three-quarters of Massachusetts educators¹ (77 percent) responding to this survey agree that their schools are good places to work and learn.** Four in ten responding educators (42 percent) “strongly agree” with this statement and about one in twenty (6 percent) “strongly disagree” (Figure 1).

Figure 1. Perceptions of Educators on Whether Their Schools Are Good Places to Work and Learn



But, while educators are generally positive about their schools, trends in the four major concepts explored—readiness, leadership, support for professional practice, and workload—demonstrate some challenges for Massachusetts educators, stakeholders and policymakers to consider.

Readiness Factor

As documented in the recently published report *Ready for 21st Century Success: The New Promise of Public Education*, Governor Patrick and the Readiness Project acknowledge the challenge and make recommendations to create an integrated, coherent, and seamless education system that prepares all children in Massachusetts—from early childhood through post-secondary education—to succeed (Patrick Administration, 2008).

The Readiness Factor combines questions from the school context and readiness sections of the Mass TeLLS survey.² Educator perceptions about the impact of external influences on students ability to learn are highlighted.

Three-quarters of Massachusetts educators¹ responding to this survey agree that their schools are good places to work and learn.

Readiness Factor Defined

In statistical models and analyses throughout the report readiness is discussed. It is the mean of seven questions on the survey that assess educator perception of the extent to which external influences affect the ability of students in their schools to learn, including: poverty, language issues, violence outside of the school, health issues, excessive tardiness, excessive absences and transience/mobility.

Teachers report that many outside influences affect their ability to be successful with all students.

Massachusetts educators note that many factors significantly affect the readiness of students in their classroom to learn. A majority of educators report that student academic preparation (77 percent), attendance—both excessive absences (70 percent) and tardiness (67 percent)—community support (61 percent), poverty (58 percent), language barriers (56 percent) impact student performance.

But while nine in ten educators report that their faculty is committed to helping every student learn (89 percent), they may need more support to help address readiness concerns.

- Less than half of educators (47 percent) agree that social services are available to ensure that all students are ready to learn.
- Half (50 percent) of Massachusetts teachers indicate a need for professional development to support them in differentiating instruction for all students, while 73 percent of administrators indicate that teachers need more support in this area. Additionally, only one-third (37 percent) of educators agree that teachers have *sufficient* instructional time to meet the needs of all students.
- Less than half of educators indicate that they are supported by the community in which they teach (49 percent), and that families help students achieve educational goals in their schools (43 percent).

Leadership Factor

School improvement is not possible without skilled, knowledgeable leadership that is responsive to the needs of all teachers and students.

School improvement is not possible without skilled, knowledgeable leadership that is responsive to the needs of all teachers and students. A report from the Wallace Foundation (2004) revealed that leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school. In particular, it appears that supportive school leaders who create trusting environments where teachers are engaged in decision making impacts the latter group's decisions about where to work. Researchers have shown how an administrator's leadership style, communication skills, and supportive behaviors influence teacher recruitment and retention (Ballou & Podgursky, 1998; Bogler, 2001; Hanushek & Rivkin, 2007; Johnson, Berg & Donaldson, 2005; Reichardt, et al., 2008).

Leadership Factor Defined

In statistical models and analyses throughout the report “leadership” is discussed. It is the mean of seven questions on the survey that assess educator perception on several issues explored in the “school leadership” and “teacher empowerment” sections of Mass TeLLS. Concepts related to solving problems, effective decision making processes, recognition of educational expertise, teacher comfort in raising issues and school leaderships efforts to address teacher concerns are included.

School leadership is supportive in many areas, but needs to do more to create trusting environments and address concerns about teaching conditions.

Educators are positive about several aspects of school leadership (Leadership is defined on the survey as any individual, group or team of educators, includes, but is not limited to the principal or other school administrators)³. An overwhelming majority report that teachers are held to high professional standards (84 percent) and that clear expectations are communicated to students and families (72 percent).

Other areas of leadership, however, appear to be of concern to Massachusetts educators.

- Less than two-thirds of educators report that there is an atmosphere of trust in their schools (62 percent) and feel comfortable raising issues and concerns that are important to them (58 percent).
- Less than half of educators report that school leadership is making a sustained effort to address teacher concerns about leadership (45 percent), teacher empowerment (46 percent) and time (47 percent).

These concerns in the area of trust and support appear to be more pronounced in Massachusetts than in several other states that have asked similar questions of educators this year (Table 2). A lower proportion of educators in Massachusetts agree that they work in trusting environments, that they feel comfortable raising issues, and that they receive feedback that can help them improving teaching than in any state except Maine. Less than two-thirds of educators in Massachusetts agree that teacher receive helpful feedback, compared to more than three-quarters of educators in North Carolina and Alabama.

Educators in Massachusetts are relatively more positive about issues related to school leadership communicating clear expectations and faculty commitment to student learning.

An overwhelming majority of educators report that teachers are held to high professional standards and that clear expectations are communicated to students and families.

Cross-State Comparison Data

The New Teacher Center conducted similar surveys across the nation during the 2007-2008 school year in seven states—Alabama, Illinois, Kansas, Maine, North Carolina and West Virginia—and one large school district (Fairfax County Public Schools). More than 215,000 educators responded and data was provided to over 6,000 schools.⁴ While there is wide variation in the response rates, policy contexts and demographics of students served across these locations, it is still instructive to assess similarities and differences in the perceptions of educators. The goal in providing this comparison is not for making high-stakes policy decisions nor to search for silver-bullet solutions, but to better understand whether the proportion of educators noting the presence of teaching conditions is typical or atypical relative to other contexts.

Table 2. Cross-State Survey Results on Leadership Questions

Question for NTC Teaching Conditions Survey	Percent Agreeing					
	Alabama	Kansas	Maine	Massachusetts	North Carolina	West Virginia
Teachers receive feedback that can help them improve teaching.	76%	67%	49%	63%	76%	70%
The school leadership communicates clear expectations to students and parents.	Not asked	68%	55%	72%	75%	69%
There is an atmosphere of trust and mutual respect within the school.	68%	67%	55%	62%	67%	67%
Teachers feel comfortable raising issues and concerns that are important to them.	Not asked	64%	54%	58%	Not asked	67%
The faculty are committed to helping every student learn.	87%	89%	87%	89%	87%	88%

Teachers do not feel engaged in important decisions about their schools.

Teacher empowerment is viewed as critical to teacher success with students and their future employment decisions. One-quarter (27 percent) of educators report on Mass TeLLS that empowerment is the most important teaching condition in promoting student learning, and the most significant condition influencing whether teachers keep working at their current school (26 percent).

Massachusetts educators, however, report that they do not feel empowered and engaged in education decision making generally—less than half (46 percent) of educators report that teachers are meaningfully involved in decision making about educational issues. While almost two-thirds of educators report that steps are taken to solve problems in their schools (63 percent), less than half (45 percent) agree that there is an effective process for making group decisions.

Educators in Massachusetts are less likely to note engagement and an effective group decision-making process than their peers in every state except Maine. For example, less than half of educators in Massachusetts, Maine and West Virginia agree that they are centrally or meaningfully involved in decision making compared to more than six out of ten in Alabama (63 percent)

and North Carolina (61 percent). Less than half of educators in the Commonwealth believe there are effective processes for collaborative decision making in place versus about six out of ten in every state but Maine.

Table 3. Cross-State Survey Results on Empowerment Questions

Question for NTC Teaching Conditions Survey	Percent Agreeing					
	Alabama	Kansas	Maine	Massachusetts	North Carolina	West Virginia
Teachers are centrally involved in decision making about educational issues.	63%	55%	38%	46%	61%	46%
The faculty has an effective process for making group decisions and solving problems.	Not asked	58%	38%	45%	62%	62%
In this school we take steps to solve problems.	75%	72%	57%	63%	68%	71%
Teachers are recognized as educational experts.	Not asked	68%	51%	57%	Not asked	63%
Teachers are trusted to make sound professional decisions about instruction.	75%	69%	59%	63%	74%	63%

Teachers in Massachusetts report having a “large role” or the “primary role” on many issues that impact their teaching practice such as selecting instructional materials and resources (43 percent), devising teaching techniques (54 percent). But teachers are not influencing other decisions that affect their classrooms and schools. At least two-thirds report teachers in their school play a “small role” or “no role at all” in determining the content of in-service professional development programs (66 percent), hiring new teachers (71 percent), and school budgeting (82 percent), and a majority play a limited role in establishing and implementing policies related to student discipline (58 percent) and scheduling (60 percent).

Support for Practice Factor

Given the complexity of teaching and learning in today’s schools, high-quality professional development is necessary to ensure that all teachers are able to meet the needs of diverse student populations, effectively use data to guide reform and become active agents in their own professional growth. An increasing number of research studies are showing that certain forms of professional development increase teacher effectiveness, and also result in higher job satisfaction, thus leading to greater teacher retention (Firestone & Pennell, 1993; Ma & MacMillan, 1999; Stockard & Lehman, 2004).

Support for Professional Practice Factor Defined

In statistical models and analyses throughout the report “Support for Professional Practice” is discussed. It is the mean of seven questions on the survey in the areas of facilities and resources and professional development that assess educator perception about the sufficiency of resources for teaching and learning. Concepts in the factor include access to instructional material as well as instructional and communication technology, adequacy of professional space and time and resources for professional development.

Educators do not have sufficient resources available for professional development.

Less than half of Massachusetts educators report that there are sufficient resources for teachers to take advantage of professional development (47 percent) and agree that adequate time is provided for professional development (40 percent). As a result, only half of teachers agree that they are provided opportunities to learn from one another and only in using reading and writing strategies did a majority (53 percent) of teachers in the state report having at least ten clock hours of professional development over the past two years.

But while a majority of teachers received professional development in reading/writing strategies, there are differences across school level (Table 4). Two-thirds of elementary teachers received ten-plus hours while only about half (45 percent) of middle school teachers and one-third (35 percent) of secondary teachers reported that level of support in this area. Elementary school teachers were much less likely to receive support in mapping the curriculum than middle and secondary educators despite a similar proportion expressing a need for professional development in this area to improve their practice.

While many educators in the Commonwealth have received support on differentiating instruction (49 percent), and using assessments (47 percent), few educators had a significant amount of professional development in establishing professional learning communities (15 percent), managing student behavior (19 percent), inducting/mentoring new teachers (19 percent) and teaching second language learners (29 percent), regardless of school level.

Table 4. Professional Development Opportunities Needed and Received by School Level

Professional Development Area	Need Additional Professional Development			Received at Least 10+ Hours Over Past Two Years		
	Elementary	Middle	Secondary	Elementary	Middle	Secondary
Differentiated instruction	49%	50%	49%	50%	53%	46%
Using assessments (benchmarks or formative)	35%	36%	36%	51%	42%	43%
Establishing professional learning community protocols	20%	23%	23%	14%	15%	15%
Teaching second language learners	36%	33%	29%	33%	25%	22%
Mapping the curriculum	27%	27%	27%	29%	39%	48%
Managing student behavior	36%	33%	36%	19%	18%	19%
Using reading/writing strategies	38%	32%	30%	66%	45%	35%
Inducting/mentoring new teachers	14%	15%	18%	16%	21%	22%

While almost two-thirds of Massachusetts educators (63 percent) report that they have incorporated strategies from the professional development they have received into their instructional delivery and that it has proven useful in improving student achievement (59 percent), only one-quarter (27 percent) received ongoing follow up from professional development that helped them improve. Overall, less than half (48 percent) agree that professional development provides teachers with the knowledge and skills most needed to teach effectively.

It appears that Massachusetts educators are less likely than their peers in select states to agree that professional development provides teachers with the knowledge and skills most needed (Table 5). Less than half (48 percent) of Massachusetts educators agree, far less than the three-quarters of Alabama educators and two-thirds of those in North Carolina. Fewer Massachusetts educators than in any other state agree that sufficient resources are available to allow teachers to take advantage of professional development activities.

Questions on NTC Teaching Conditions Survey	Percent Agreeing					
	Alabama	Kansas	Maine	Massachusetts	North Carolina	West Virginia
I have received follow up from professional development opportunities that help me improve my teaching.	Not asked	36%	27%	27%	65%	62%
Professional development provides teachers with the knowledge and skills most needed to teach effectively.	75%	63%	45%	48%	68%	57%
Sufficient resources are available to allow teachers to take advantage of professional development activities.	72%	68%	53%	47%	58%	58%
Teachers are provided opportunities to learn from one another.	63%	63%	52%	50%	71%	54%
Professional development has proven useful to YOU in your efforts to improve student achievement.	Not asked	61%	57%	59%	68%	63%
Professional development has provided YOU with strategies that you have incorporated into your instructional delivery methods.	Not asked	64%	61%	62%	70%	68%

New teachers receiving additional support found it helpful.

More than 4,756 beginning educators answered specific questions about the support they receive. Four-fifths (80 percent) of new teachers—those with three years of teaching experience or less—report being formally assigned a mentor. Mentoring was the most frequent way support was provided to those educators (96 percent), but many also received an orientation (92 percent) and beginner’s seminars (46 percent), supportive communications with administrators (64 percent) and collaborative or common planning time (51 percent).

- Of those educators assigned a mentor, about three-quarters of new teachers reported that effective support was provided in many areas, including general social support and encouragement (84 percent), school and/or district procedures (76 percent), instructional strategies (74 percent), classroom management and discipline strategies (72 percent).
- But this support does not appear to be systematically in place across the state. Of those 80 percent of new teachers assigned a mentor, more than one-quarter report never planning with their mentor during the school day (29 percent), planning instruction with their mentor (30 percent), being observed by their mentor (34 percent), or observing their mentor's teaching (40 percent).
- Given these inconsistencies, less than half of educators receiving induction report that the program improved their instructional practice (45 percent), and only one-third said it influenced their decision to stay in teaching (32 percent). Overall, 41 percent of new teachers assigned a mentor agreed that it was an important factor in their decision to remain teaching at their current school.

Teachers need more resources to support instruction.

Many educators in Massachusetts do not report having sufficient facilities and resources to work productively (Table 6). Somewhat more than half of educators report that they have sufficient instructional materials and resources (58 percent), instructional technology (55 percent), reliable communications technology (61 percent), and less than half agree that teachers receive sufficient training and support to fully utilize available instructional technology (43 percent). Additionally about half of educators agree that teachers have adequate professional space to work productively (53 percent), and their schools are environmentally healthy (49 percent) and clean and well-maintained (60 percent).

Educators in both Maine and Massachusetts are less likely to report that they have the resources they need in most areas. Educators in Massachusetts were less likely than their peers in other states to report having sufficient access to instructional materials and technology. About half (55 percent) of Massachusetts educators agree that they have sufficient instructional technology compared to two-thirds in Maine (68 percent) and three-quarters in North Carolina (76 percent) and Alabama (74 percent).

Many educators in Massachusetts do not report having sufficient facilities and resources to work productively.

Table 6. Cross-State Survey Results on Professional Development Questions

Questions on NTC Teaching Conditions Survey	Percent Agreeing					
	Alabama	Kansas	Maine	Massachusetts	North Carolina	West Virginia
Teachers have sufficient training and support to fully utilize the available instructional technology.	67%	54%	42%	43%	Not asked	58%
Teachers have access to reliable communication technology, including phones, faxes and email.	85%	83%	71%	61%	79%	73%
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.	74%	71%	68%	55%	76%	70%
Teachers have adequate professional space to work productively.	Not asked	68%	50%	53%	72%	67%
Teachers have sufficient access to appropriate instructional materials and resources.	79%	75%	63%	58%	76%	77%
Teachers and staff work in a school environment that is safe.	84%	87%	76%	73%	84%	80%
Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.	76%	79%	Not asked	Not asked	74%	77%

Workload Factor

Quality teaching is time-dependent. Teachers need time to collaborate with their peers, discuss and observe best practices, and participate in professional development that prepares them for improving curricula and the challenges of teaching a diverse population. Current school schedules demand that teachers spend the vast majority of their time in classroom instruction. Most teachers have little non-instructional time during the school day, and in that time, they must prepare instructional materials, assess students and communicate with parents. Additionally, teachers often must serve on school committees, staff various extracurricular activities or cover hall or lunch duty. Such schedules do not allow adequate time for the continuous professional learning that is necessary for quality teaching.

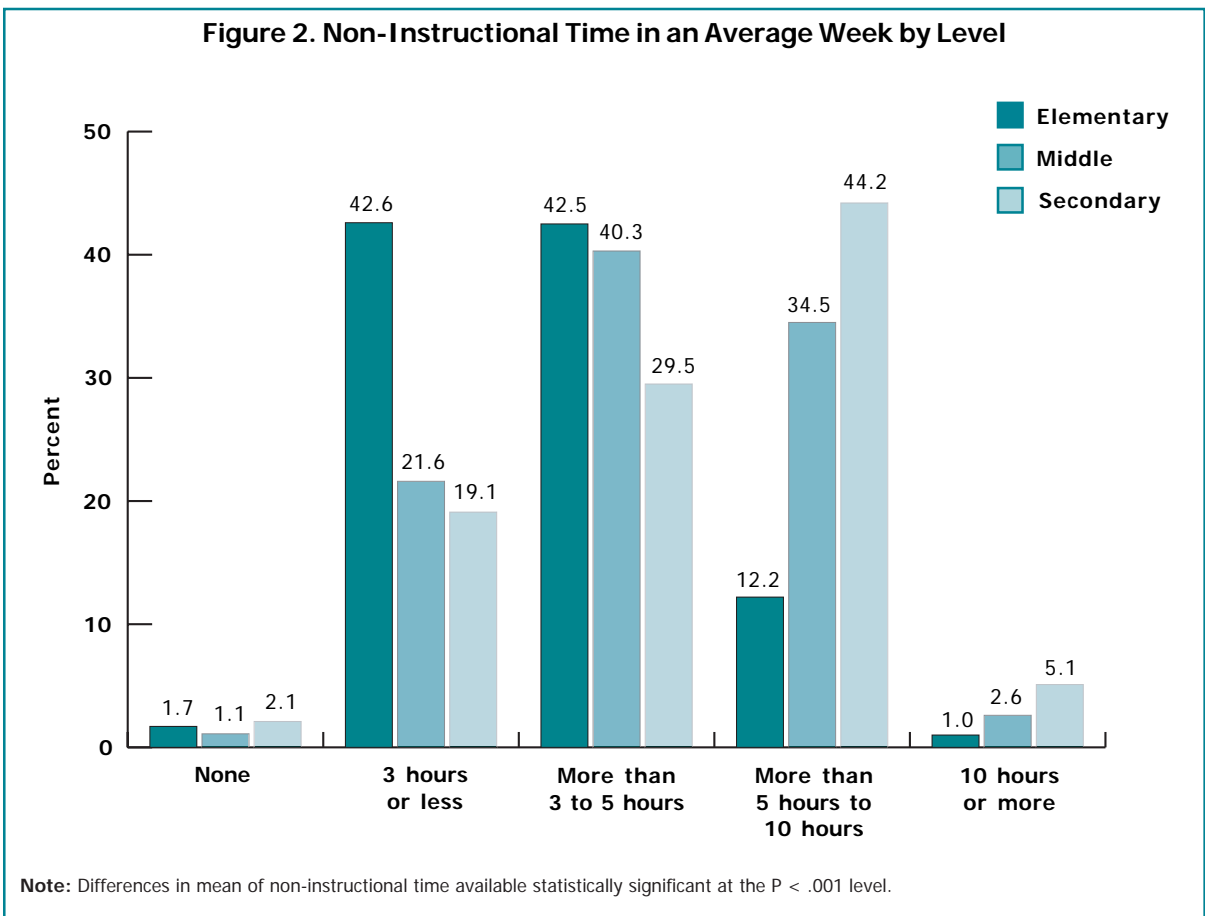
Workload Factor Defined

In statistical models and analyses throughout the report “workload” is discussed. It is the mean of seven questions on the survey that assess educator perception of the extent to which various factors contribute to teachers overall workload, including: student assessment, curriculum alignment with MCAS, diverse student learning needs, student behavior, required professional development, compliance with No Child Left Behind and getting students to expected levels of performance.

Elementary teachers need more time to plan and work with colleagues.

About one-third (37 percent) of educators report that the non-instructional time (time without student contact that could be used for planning, meetings, etc.) teachers receive is sufficient, and only 39 percent agree that they have time to collaborate with colleagues.

Finding sufficient time appears to be a greater challenge for elementary educators (Figure 2). Almost half (45 percent) of elementary school teachers report receiving three hours or less of non-student contact time to plan or collaborate compared to only about one-quarter (23 percent) of middle school teachers and one-fifth (21 percent) of secondary school teachers reporting similar levels. Half (49 percent) of secondary teachers have at least an hour a day, on average, of non-instructional time versus 13 percent of elementary teachers.



For some teachers, the non-instructional time they receive is spent on routine paperwork and supervisory duties (38 percent and 14 percent, respectively, spend more than 3 hours per week).

Getting students to expected levels of performance significantly contributes to teacher workload.

Massachusetts educators note substantial time is required to address the needs of diverse learners and getting students to expected levels of performance. More than half of teachers “strongly agree” that getting students to expected levels of performance (61 percent) and meeting diverse student learning needs in the classroom (52 percent) contribute to their overall workload. Student assessment requirements (49 percent strongly agree) and aligning curriculum with the Massachusetts Comprehensive Assessment system (39 percent) also take up a significant amount of teacher time.

While significant time is devoted to meeting performance standards and assessment, few educators agree that there is sufficient instructional time available to meet the needs of all students (39 percent), and to complete the curriculum for their subject and/or grade (37 percent).

Massachusetts educators note substantial time is required to address the needs of diverse learners and getting teachers to expected levels of performance.

Teaching Conditions Influence Student Performance

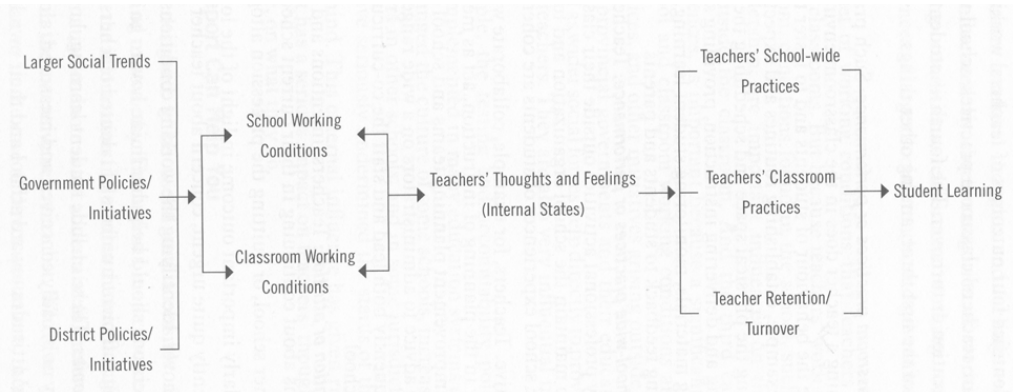
Research has demonstrated clear connections between the perceptions of educators about their teaching conditions and their ability to influence student learning (Hirsch and Emerick, 2007, 2006; Leana and Pils, 2006; Leithwood, 2006). This section of the report analyzes the relationship between survey responses aggregated to the school level and school performance on the Massachusetts Comprehensive Assessment System in mathematics and English Language Arts as measured by the Composite Performance Index (CPI) in each of the 1,205 schools with sufficient response (see Appendix C for definitions of the CPI and other variables).

Analyses in this section demonstrate that students perform at higher levels in schools where a greater proportion of educators report that they have strong leadership, support and work with students who come to school ready to learn, while controlling for the influence of school, teacher and student characteristics.

Kenneth Leithwood, in examining hundreds of studies on teacher working conditions and their effects, provides a framework that demonstrates the complexity of the relationship between educators' perceptions and their ability to influence student learning (Figure 3). The relationship between teaching conditions and student learning is not straightforward. Educator perceptions of their school environments are shaped by external influences such as federal, state and district policies, community engagement, etc. Many teachers in the same school will experience and perceive the same conditions differently. These perceptions influence school and classroom practices which in turn impact student learning. The fact that these conditions are filtered through perceptual lenses does not make them any less important. As Leithwood finds, "what teachers actually do in their schools and classrooms depends on how teachers perceive and respond to their working conditions" (Leithwood, 2006, p. 8)

This complexity, however, makes drawing causal connections between educator reports of the presence of positive teaching conditions in their schools and improved student performance extremely difficult. With anonymous survey data and achievement aggregated to the school level, findings with this level of specificity cannot be reached. But analyses presented in this section do demonstrate that students perform at higher levels in schools where a greater proportion of educators report that they have strong leadership, support and work with students who come to school ready to learn, while controlling for the influence of school, teacher and student characteristics. A significant and direct relationship between teaching conditions and student performance is presented.

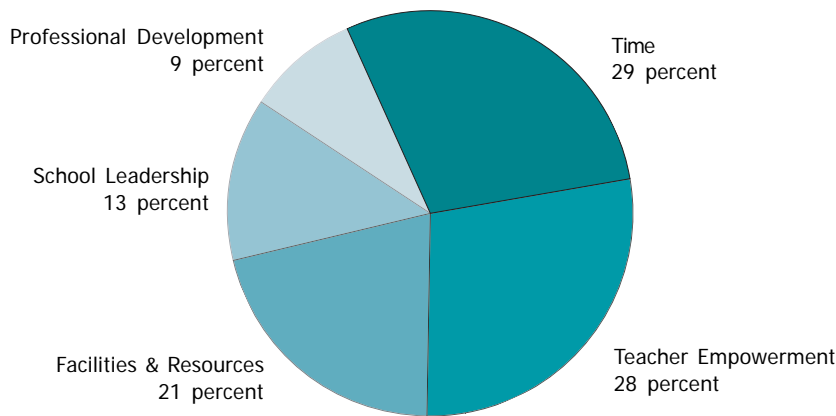
Figure 3. Framework for Understanding Teacher Working Conditions and Their Effects



Source: Kenneth Leithwood. 2006. *Teacher Working Conditions That Matter: Evidence for Change*. Toronto: Elementary Teachers' Federation of Ontario, p. 9.

On Mass TeLLS, teachers reported that time and empowerment are the conditions most critical to promoting student learning (Figure 4). About three in ten educators (29 percent) report that time—encompassing issues such as class size and non-instructional and instructional time available—and empowerment (28 percent) are the most critical conditions. Professional development (9 percent) and school leadership (13 percent) were cited by only about one out of ten teachers respectively.

Figure 4. Teaching Condition Perceived as Being MOST Important in Promoting Student Learning



An examination of teaching conditions in the four areas analyzed—leadership (which includes concepts in both school leadership and teacher empowerment), readiness, support for professional practice (including concepts in both professional development and facilities and resources) and workload—demonstrate significant differences in whether educators report conditions are in place and student performance (Tables 7 and 8)

- While there are significant differences between the highest and lowest performing schools across all four areas at all school levels, the disparity in the readiness factor is particularly large. Educators in the lowest-performing quartile are much more likely to note that external influences such as poverty, tardiness, violence, etc. influence the ability of students to learn.
- There is less variance between the highest and lowest performing schools at the secondary level (with the exception of workload) than in middle and elementary schools.

Table 7. Teaching Conditions by Composite Performance Index in Mathematics by Level

Mass TeLLS Factor	Quartile I (Lowest Performing)	Quartile II	Quartile III	Quartile IV (Highest Performing)
<i>Elementary Schools</i>				
Readiness***	4.07	3.60	3.11	2.69
Leadership***	3.27	3.45	3.51	3.63
Support for Professional Practice***	3.01	3.15	3.15	3.36
Workload***	4.28	4.22	4.17	4.12
<i>Middle Schools</i>				
Readiness**	4.06	3.46	3.19	2.71
Leadership***	3.15	3.22	3.47	3.41
Support for Professional Practice***	2.97	3.09	3.27	3.43
Workload***	4.27	4.11	4.07	3.97
<i>Secondary Schools</i>				
Readiness***	3.96	3.47	3.21	2.77
Leadership***	3.09	3.14	3.18	3.26
Support for Professional Practice*	2.98	3.10	3.09	3.27
Workload***	4.05	3.96	3.93	3.80

* Statistically significant differences across quartiles at the $p < .05$ level, two-tailed ANOVA
 ** Statistically significant differences across quartiles at the $p < .01$ level, two-tailed ANOVA
 *** Statistically significant differences across quartiles at the $p < .001$ level, two-tailed ANOVA

Note: For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

Table 8. Teaching Conditions by Composite Performance Index in English Language Arts

Mass TeLLS Factor	Quartile I (Lowest Performing)	Quartile II	Quartile III	Quartile IV (Highest Performing)
<i>Elementary Schools</i>				
Readiness***	4.10	3.62	3.07	2.62
Leadership***	3.22	3.46	3.49	3.68
Support for Professional Practice***	3.02	3.07	3.16	3.41
Workload***	4.28	4.23	4.16	4.12
<i>Middle Schools</i>				
Readiness**	4.10	3.41	3.21	2.70
Leadership***	3.11	3.23	3.49	3.44
Support for Professional Practice***	2.91	3.11	3.26	3.47
Workload***	4.26	4.12	4.08	3.96
<i>Secondary Schools</i>				
Readiness***	3.98	3.50	3.20	2.75
Leadership***	3.06	3.13	3.20	3.28
Support for Professional Practice*	2.96	3.13	3.11	3.24
Workload***	4.06	3.96	3.93	3.79

* Statistically significant differences across quartiles at the $p < .05$ level, two-tailed ANOVA
 ** Statistically significant differences across quartiles at the $p < .01$ level, two-tailed ANOVA
 *** Statistically significant differences across quartiles at the $p < .001$ level, two-tailed ANOVA

Note: For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

Individual survey item analyses help to better identify areas within each of the factors where educators have differing perspectives across school levels. Disparities across performance quartiles are presented for elementary school CPI in mathematics only given the similarities across tested subjects and grade levels (Table 9). Additionally, external influences from the Readiness Factor such as violence, poverty, transience, language, absences and health on the abilities of student to learn are excluded from the table as seven out of the top ten questions with greatest disparity were drawn from that section. For example, about three-quarters (72 percent) of educators in the lowest performing schools agree that violence is a significant influence on student learning compared to about one-fifth (18 percent) in the highest performers.

When examining the non-readiness questions with the greatest differences:

- Family and community support differs substantially in high and low performing schools. Only one in five educators (21 percent in the lowest performing schools agree that families help students achieve educational goals compared to more than three-quarters (76 percent) in the highest performing group of schools.

- Vast differences in access to instructional resources exist between high and low performing schools. About five out of ten (53 percent) teachers report having sufficient access to instructional materials in the lowest performing schools on the elementary school mathematics CPI compared to seven out of ten in the highest performers.
- Health and safety issues are perceived differently in lower performing schools. Far more educators in the highest performing schools noted that their buildings were physically safe, environmentally healthy, and well-maintained.

Table 9. Mass TeLLS Questions by CPI Elementary Mathematics Performance

Mass TeLLS Question (Percent Agreement)	Quartile I (Low Poverty)	Quartile II	Quartile III	Quartile IV (High Poverty)
Families help students achieve educational goals in this school.	21%	40%	59%	76%
Teachers are supported by the community in which they teach.	36%	50%	61%	73%
Teachers and staff work in a school that is physically safe.	61%	75%	78%	81%
The school leadership consistent enforces rules for student conduct	46%	56%	58%	65%
Teachers and staff work in a school that is environmentally healthy	38%	48%	51%	56%
Teachers have access to reliable communication technology, including phones, faxes and email	50%	58%	61%	68%
Teachers have sufficient access to appropriate instructional materials and resources	53%	60%	60%	70%
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access	47%	55%	56%	64%
Teachers and staff work in a school environment that is clean and well maintained	49%	61%	62%	66%
Teachers are trusted to make sound professional decisions about instruction	53%	65%	66%	70%

Note: Items are ordered based on the greatest disparity between Quartile I (low poverty) and Quartile IV (high poverty) schools, excluding items from the readiness and workload factors.¹

There were few differences across performance quartiles on several questions related to professional development and instructional practice. Four out of ten teachers in the lowest and highest performing schools agreed that they have time available to collaborate with colleagues and about half in each (51 and 54 percent respectively) agree that teachers are provided opportunities to learn from one another. Teachers across quartiles uniformly agreed that the curriculum taught is aligned with standards and about three-quarters of educators in schools in each performance quartile agreed that the MCAS and other student data are used to improve instruction.

Statistical Models of Teaching Conditions and Student Achievement

To better understand the connections between teaching conditions and student achievement, statistical models were created for elementary, middle and secondary schools examining the connection between CPI (for both mathematics and English Language Arts) and four sets of influences: teaching conditions, student background, teacher background, and school characteristics (see Appendix C for a full presentation of the statistical models, definition of terms and data used). This modeling moves beyond correlations by controlling for various factors to better determine whether there is a direct relationship between particular teaching conditions and achievement in light of the multitude of factors that influence student learning.

Elementary School Student Achievement: Mathematics

The statistical model for mathematics performance was robust, explaining 67 percent of the variance in CPI across the over 700 elementary schools with sufficient response on Mass TeLLS. Teaching conditions explained up to 50 percent of the differences in performance across schools. Readiness, Leadership and Support for Professional Practice all significantly affect performance on the CPI while controlling for student, teacher and school factors. Consider the following.

- Readiness had the strongest impact of the teaching conditions factors, exerting roughly the same influence on the Composite Performance Index as student attendance rates and out-of-school suspensions, more than all other variables except the proportion of low-income students. A 2.2 point drop in the CPI could be estimated for every one point difference in the Readiness Factor mean score (the expected direction as a lower readiness score means that teachers agree that external influences play a lesser role).
- A 1.7 point increase on the CPI can be estimated for every one point increase on the Leadership Factor mean. Perceptions of leadership had a stronger influence on performance than the proportion of Limited English Proficient students and percentage of teachers licensed in their assigned teaching area.
- Poverty was the strongest influence on achievement, almost ten times as predictive of achievement as Support for Professional Practice (and more than three times more influential than any other variable within the model).

Lower student teacher ratio and urbanicity (less urban) were also statistically significant in predicting mathematics performance, in addition to the variables discussed above.

Elementary School Performance: English Language Arts

The model examining CPI in English Language Arts explained 74 percent of the variance in achievement across schools with teaching conditions accounting for as much as 54 percent of the difference. Readiness and Leadership were statistically significant in explaining ELA performance, but Support for Professional Practice was not (though it was at the $p < .10$ level).

Readiness, Leadership and Support for Professional Practice all significantly affect performance on the CPI while controlling for student, teacher and school factors.

- The percentage of Limited English Proficient students had a stronger influence on ELA than in mathematics, exerting about half the influence of poverty and three times the influence of Leadership and Readiness.
- Leadership and Readiness exerted about the same relative influence on ELA achievement, greater than student teacher ratio and urbanicity. A two point increase on the CPI in ELA could be expected for every one point increase in the Leadership Factor mean.
- A few variables that were significant in explaining mathematics performance were not statistically significant for ELA, including the percent of teachers licensed in their assigned area, percentage of students with at least one out-of-school suspension and Support for Professional Practice.

Across tested subjects, both Leadership and Readiness were strong predictors of student achievement at the elementary school level. While less powerful than student characteristics such as poverty and language, these conditions nevertheless significantly impact student performance.

Middle School Performance: English Language Arts

Performance for English Language Arts at the middle school level is not presented as no teaching conditions factors were statistically significant in models that explained the most variance on the CPI across schools. As can be seen in the examinations of performance quartiles there are connections between performance and teaching conditions in ELA (Table 8) and are significant in less predictive models.

Middle School Performance: Mathematics

The model for performance in mathematics explained 86 percent of the variance across roughly 200 middle schools on the CPI with as much as 34 percent attributed to teaching conditions factors. No teacher characteristics were statistically significant and the Workload Factor was the only teaching condition that was significant.

- The more educators indicated that activities influenced their workload, the lower the performance on school-level math achievement. For every one point increase in the Workload Factor a 5.2 point decrease on the math CPI could be estimated.
- Workload had approximately the same influence on math performance as the number of teachers in the building (an approximation for school size). The proportion of low-income students was more than four times more predictive of performance than the Workload Factor and student attendance rate was about 2.75 times stronger an influence than Workload.
- Only five variables were statistically significant: poverty, attendance rate, percentage of students with at least one out-of-school suspension, number of teachers and Workload.

The more educators indicated that activities influenced their workload, the lower the performance on school-level math achievement.

Secondary Student Performance: Mathematics

The model for performance in mathematics explained 71 percent of the variance across roughly 200 secondary schools on the CPI with as much as 54 percent attributed to teaching conditions factors. The Workload Factor was the only teaching condition found statistically significant (although Leadership is significant if using a $p < .10$ threshold).

- Workload exerted roughly the same influence on mathematics performance as urbanicity, the percentage of students with at least one out-of-school suspension, and the percentage of teachers licensed in their assigned area. For every one point increase in the Workload Factor mean a corresponding 10 point drop on the CPI could be estimated.
- As has been the case in all models, the percentage of low-income students had the strongest influence on performance, more than three times as great a predictor as Workload and 2.5 times as much as attendance rate.

Student teacher ratio, in addition to the variables discussed above, was a significant influence on secondary math performance.

Secondary Student Performance: English Language Arts

The model for performance in mathematics explained 74 percent of the variance on the English Language Arts CPI with as much as 54 percent attributed to teaching conditions factors. As was the case with math, the Workload Factor was the only teaching condition that was statistically significant in explaining student performance.

- The Workload Factor was a stronger influence on ELA performance than the student teacher ratio and the percentage of teachers licensed in their assigned area. A decrease of 6.5 points on the CPI could be estimated for every one point increase in the Workload Factor mean.
- As was the case at the elementary level, student language proficiency—first language not English or Limited English Proficient—was a significant influence on school-wide ELA performance.

Poverty and attendance were also statistically significant.

Overall the findings from this section support the premise that teaching conditions are essential elements of schools with strong student performance. All four teaching conditions factors were statistically significant in explaining achievement in at least one model. The Workload Factor was significant at the middle and secondary school levels, while Leadership, Readiness and Support for Professional Practice were predictive of performance in elementary schools. Teaching conditions exerted similar or greater influence on achievement in these models as teacher assignment and student teacher ratio. Providing educators with strong leadership, sufficient resources and support, and a manageable workload are important strategies for policymakers and stakeholders to consider in improving student performance.

All four teaching conditions factors were statistically significant in explaining achievement in at least one model.

Teaching Conditions Influence Decisions About Where and Whether to Teach

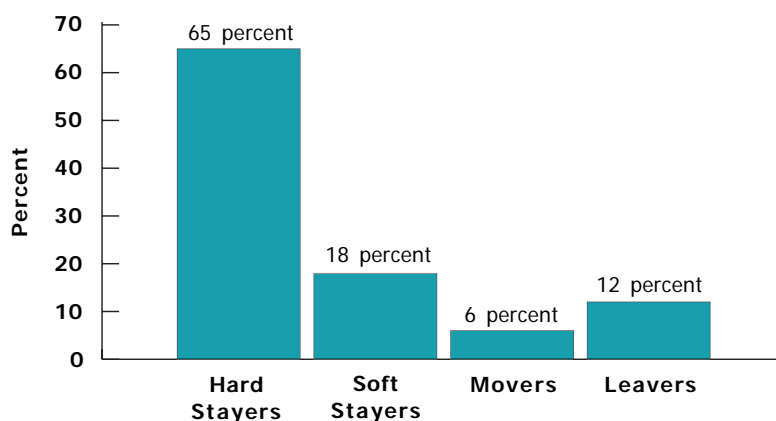
The Mass TeLLS data demonstrates what individuals who work in schools already know: teaching conditions are a potentially powerful lever to help address teacher attrition. As school level turnover data was not available, analyses of teacher turnover could not be conducted. However, teachers responding to the survey were asked about their future employment plans, facilitating analyses of influences on teachers who indicate that they want to remain teaching in their current school.

Overall, more than four in five Massachusetts teachers (83 percent) responding to this survey indicated that they want to “stay” teaching at their current schools (Figure 5). This group includes 65 percent of responding teachers who want to stay in their schools as long as they are able and another 18 percent who plan to remain in their position but are open to moving. Six percent of respondents were “movers,” wanting to continue teaching but in a different school or district, while twelve percent were “leavers,” indicating that they plan to either leave classroom teaching or education altogether.¹

Future Employment Plans Defined

On the survey, teachers were asked to indicate which option best described their future intentions for their professional career. “Hard Stayers” responded that they would remain teaching in their schools as long as they are able. “Soft Stayers” indicated that they planned to stay, but only until something better came along. Hard and Soft Stayers are lumped together frequently and referred to as “Stayers” in the report as both groups ultimately indicate that they plan to be in their same school in the immediate future. “Movers” responded that they want to remain teaching, but either leave their current school and remain in the same district or teach in a different district. “Leavers” include teachers who indicate that they are going to leave teaching for another position in education or leave the field altogether.

Figure 5. Future Employment Plans of Teachers Responding to Mass TeLLS



The survey includes two questions addressing future employment plans. The first question asks teachers to rate how strongly they agree or disagree that certain factors influence their decisions about their career. Here, teachers most frequently cited their sense of effectiveness in teaching (89 percent), followed closely by the collegiality of staff (88 percent), support from leadership (88 percent), and teacher empowerment to make decisions (86 percent) as factors influencing their future employment (Table 10).

Table 10. Factors Influencing Teachers’ Future Employment Plans in Massachusetts

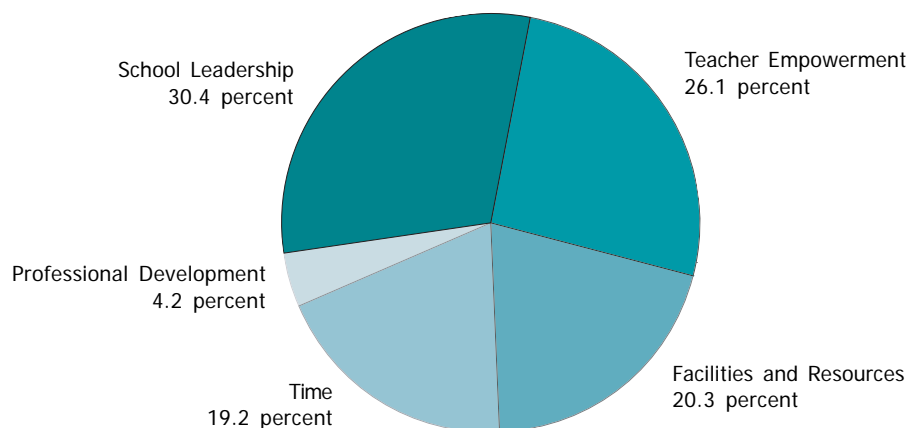
Factors Influencing Teachers’ Decisions About Their Future Intentions for Their Professional Career	Percent Agreeing, Overall	Percent “Strongly Agreeing”
Effectiveness with the students I teach	89.3%	57.1%
Collegial atmosphere amongst the staff	87.8%	55.6%
Adequate support from school leadership	87.7%	56.2%
Empowerment to make decisions that affect my school and/or classroom	86.2%	49.0%
Teaching assignment (subject, students)	85.1%	49.8%
Adequate facilities and/or resources	77.9%	33.6%
The overall demands of teaching	77.8%	41.2%
Salary	76.9%	39.8%
Time during the work day	76.8%	35.4%
The community environment where I work	76.5%	35.3%
Student behavior	72.1%	32.4%
Personal reasons (health, family, etc.)	68.2%	36.5%

Note: Table is organized in descending order of those who agreed with statements about factors influencing respondents’ decisions about their future plans.

Salary, community factors, and personal reasons, while important, were *less* likely to shape teachers’ decisions about their future professional plans than many of the teaching conditions documented in the Mass TeLLS data.

In a second question about employment plans, teachers were asked to select among the five core teaching conditions assessed on the survey that *most* affect their willingness to keep teaching at the same school: time during the work day, school facilities and resources, school leadership, teacher empowerment, and professional development. About one-third (30 percent) of all teachers ranked school leadership as the MOST important teaching condition to their willingness to continue working at their schools, followed by teacher empowerment (26 percent). (Figure 6).

Figure 6. Teaching, Learning and Leading Condition Massachusetts Teachers Perceive as Being MOST Important to Continue Teaching in Their School



Additionally, it appears that positive teaching conditions are not only important in keeping teachers, but attracting them to schools as well. Massachusetts teachers were asked about the effectiveness of various incentives toward encouraging them to teach in a “hard-to-staff” school.

While about half of teachers indicated that some financial incentives would be “extremely effective” such as loan forgiveness and/or scholarships (51 percent), and tuition assistance for advanced degrees (50 percent), improvements in teaching conditions were viewed similarly. Ensuring at least five hours of planning time per week (48 percent), a reduced teaching load (46 percent), and providing additional support personnel for students (45 percent) were all perceived as “extremely effective” incentives to work in a hard-to-staff school by about half of teachers responding to the survey.

Positive Perceptions of Teaching Conditions Are Linked to Staying

Evidence throughout the survey indicates that Massachusetts teachers with positive perceptions about the presence of positive teaching conditions, particularly in the areas of school leadership and teacher empowerment, are much more likely to want to stay at their current school (Table 11). Leavers are, on average, more positive than movers as they are made up not only of those who are dissatisfied with their schools or the teaching profession, but those leaving for a variety of reasons unrelated to school organization (i.e. retirement, second income earner, taking a position in administration, etc.).

Table 11. Differences in the Perceptions of Stayers, Movers and Leavers on Teaching, Learning and Leading Conditions Questions

Mass TeLLS Questions	Percent of Educators Agreeing		
	Stayers	Movers	Leavers
There is an atmosphere of trust and mutual respect within the school.	65.3%	19.7%	51.3%
In this school we take steps to solve problems.	65.1%	23.3%	53.1%
Teachers feel comfortable raising issues and concerns that are important to them.	59.7%	19.6%	48.1%
Teachers are recognized as educational experts.	58.6%	19.8%	46.6%
Teachers are trusted to make sound professional decisions about instruction.	65.7%	29.4%	54.0%
Teachers receive feedback that can help them improve teaching.	65.8%	30.6%	53.8%
Clear expectations are communicated to students and families.	74.4%	39.6%	64.4%
Teacher performance evaluations are handled in an appropriate manner.	69.2%	35.7%	59.1%
School leadership shields teachers from disruptions, allowing teachers to focus on educating students.	51.0%	18.9%	39.7%
The faculty has an effective process for making group decisions and solving problems.	46.0%	14.1%	34.9%
The school leadership consistently enforces rules for student conduct.	50.4%	18.5%	40.0%
Teachers are meaningfully involved in decision making about educational issues.	46.6%	15.0%	36.6%
Teachers and staff work in a school environment that is physically safe.	74.8%	44.4%	66.9%

Note: Table is organized in the order of the greatest difference between perceptions of stayers and movers across a variety of questions about the presence of teaching conditions.

Many of the greatest differences in perceptions are related to school leadership and teacher empowerment. Two to three times as many stayers agreed with positive statements about school leadership and teacher empowerment than did movers. For example, while only about 20 percent of movers agreed “there is an atmosphere of trust and mutual respect in this school,” nearly two-thirds (65 percent) of stayers agreed with the same statement.

Massachusetts teachers who want to remain teaching in their schools were far more likely to note the presence of supportive, trusting environments where the faculty works to address problems that may arise.

The data shows that disparities between stayers and movers are visible not just in whether teaching conditions are present, but also in their perceptions of whether or not school leadership makes efforts to improve such conditions. Teachers who want to stay in their schools are far more likely than those who want to move to agree that school leadership is working to improve teaching conditions (Table 12).

- While the greatest gap between stayers and movers can be seen in the area of addressing concerns about teaching and learning issues (64 percent and 25 percent respectively), teachers were more positive about efforts here than in any other area.

- Stayers and movers are least likely to agree that school leadership is making sustained efforts to addressing leadership issues, the area most important to teachers in making future employment plans. Only one out of eight movers agreed that efforts were made to address concerns about leadership; but less than half of stayers agreed as well.
- Less than half of stayers agree sustained efforts are made to address teacher concerns about leadership, the use of time and teacher empowerment. No more than one out of six movers agree efforts are made in these areas.

Table 12. Perceptions of Stayers, Movers and Leavers About School Leadership Efforts to Address Teachers’ Concerns About Teaching and Learning Conditions

School Leadership Makes a Sustained Effort to Address Teacher Concerns About:	Percent of Educators Agreeing		
	Stayers	Movers	Leavers
Teaching and learning issues	63.5%	24.9%	52.6%
New teacher support	57.3%	22.2%	46.1%
Empowering teachers	46.7%	12.2%	35.1%
Facilities and resources	54.1%	21.5%	43.6%
Leadership issues	45.9%	13.4%	33.5%
The use of time in my school	47.8%	16.5%	35.8%
Professional development	54.4%	24.4%	43.9%

Note: Responses are organized in the order of the greatest difference between perceptions of stayers and movers in response to this question on the survey.

Statistical Models Examining Expected Retention and Teaching Conditions

This section presents analysis of the proportion of teachers who indicate that they are “hard stayers.” These teachers responded to Mass TeLLS questions differently than “soft stayers” who were more similar to those who wanted to teach in another school on most questions. It was concluded that examining hard stayers alone provided the most accurate information about teachers who would in all likelihood remain in their current position.

There is a significant correlation between all four of the teaching conditions factors and the percentage of hard stayers teaching in a school at the elementary, middle and secondary levels (Table 13). In particular, it appears that the Leadership Factor has the strongest connection to expected retention and that they are strongest at the middle school level.

Table 13. Correlations Between Teaching Conditions and Proportion of Hard Stayers

Teaching Conditions Factors	Hard Stayer Proportion: Elementary Schools	Hard Stayer Proportion: Middle Schools	Hard Stayer Proportion: Secondary Schools
Leadership Factor	.561	.582	.491
Readiness Factor	-.283	-.456	-.385
Support for Professional Practice Factor	.258	.377	.375
Workload Factor	-.223	-.373	-.304

Note: Data are correlation coefficients. The closer to 1.0 or -1.0, the stronger the correlation between variables. In social sciences a .3 is generally accepted as a relatively strong connection. All differences statistically significant at the $p > .01$ level.

For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

To better understand the connections between teaching conditions and teachers’ desire to remain in their positions, statistical models were created for elementary, middle and secondary schools examining the relationship between hard stayers and four sets of influences: teaching conditions, student background, teacher background, and school characteristics (see Appendix D). This modeling moves beyond correlations by controlling for various factors to better determine whether there is a direct relationship between teaching conditions and achievement in light of the multitude of factors that influence student learning.

The model for expected teacher retention in elementary schools explained 39 percent of the variance in the percentage of hard stayers with at least 24 percent attributed to teaching conditions factors. Leadership was the only teaching condition that was statistically significant in explaining higher expected teacher retention. Leadership had the strongest influence on expected retention of any variable. Leadership was a stronger predictor of teachers’ desire to stay in their position as long as possible than the characteristics of students served. Leadership was 2.5 times as predictive as the percentage of first-language not English and Limited English Proficient students in the school and three times as predictive as the percentage of low-income students. The percentage of highly qualified teachers in core academic subjects was also statistically significant. Teachers are more likely to want to work in schools where a higher proportion of them are teaching in areas in which they have been prepared.

At the middle school level, the model for expected teacher retention explained 47 percent of the variance in the percentage of hard stayers, virtually all of which could be explained by teaching conditions. The Leadership Factor and Readiness Factor were both statistical significant. No student background characteristics were significant. The Leadership Factor mean was the strongest influence on expected teacher retention, three times as predictive as the student attendance rate and urbanicity. The Readiness Factor was the second strongest influence on expected teacher retention, almost twice as predictive as attendance and urbanicity.

Leadership was approximately twice as strong an influence on expected retention as Readiness and the number of teachers.

The model at the secondary school level explained 42 percent of the variance in the percentage of hard stayers across the approximately 200 schools with at least 31 percent of the variance explained by teaching conditions. As was the case, the Leadership Factor and Readiness Factor were statistically significant influences on intent to remain teaching in the same school. Leadership was approximately twice as strong an influence on expected retention as Readiness and the number of teachers. Urbanicity was also statistically significant.

The models across all levels are consistent—teachers want to remain working where they are positive about leadership. Teacher agreement that they are recognized as experts, that leadership makes sustained efforts to address concerns, and that problems are solved with effective decision making structures in schools has a powerful and significant impact on where teachers want to work.

Influences on the Perceptions of Teaching Conditions

Many factors could be considered a part of and an influence on teaching and learning conditions. Research shows that broader social trends, media coverage, respect for the profession, local and state policies, etc. can all influence teachers' perceptions of their conditions and ultimately their motivation and efficacy as educators (Liethwood, 2006). The Mass TeLLS Survey provides input from educators on whether a host of important research-based conditions are present.

The fact that survey results are perceptual data does not make them less “valid” or less important to consider than other data sources. Educators' perceptions are their reality. This section of the report will examine whether these perceptions appear to be systematically different based on position, years of experience and level taught.

Teachers View Teaching Conditions Differently than Principals

Teaching and learning issues, it appears, are especially important to teachers in determining whether they will remain working in their current position. School leadership—principals, assistant principals and other school administrators—do not share teachers' perceptions as to whether teaching and learning conditions are in place and efforts toward improvement occur.

While some differences in perceptions of whether teaching conditions are present can be expected between “bosses” and “employees” in any industry, the disparity between principals and teachers is notable in Massachusetts. On almost all questions, the 876 principals responding to the survey were significantly more likely than the 35,272 teachers to note the presence of positive teaching conditions, such as leadership making efforts to improve conditions in their schools (Tables 14 and 15).

While the gaps between principals and teachers are substantial on many questions, both sets of educators were generally positive about the presence of positive teaching conditions in several areas:

- *Faculty commitment to student learning*—About nine out of ten teachers (90 percent) and principals (93 percent) agree that the faculty is committed to helping every student learn.
- *Linkages between curriculum and standards*—About nine out of ten teachers (94 percent) and principals (95 percent) agree that the curriculum taught is aligned to the standards. At least eight in ten teachers (84 percent) and principals (96 percent) agree that teachers are held to high professional standards for delivering instruction.
- *Contributors to teacher workload*—Teachers and principals alike agree about the factors that significantly contribute to their workload: getting students to expected levels of performance (92 percent of teachers and 94 percent of principals), and meeting diverse student learning needs in the classroom (88 percent and 85 percent, respectively).

On almost all questions, principals were significantly more likely than teachers to note the presence of positive teaching conditions, such as leadership making efforts to improve conditions in their schools.

- *Lack of instructional and non-instructional time*—Six in ten teachers (58 percent) and three in ten principals (33 percent) “disagreed” with the statement that teachers have time available to collaborate with their colleagues. Five in ten teachers (54 percent) and four in ten principals (38 percent) “disagreed” that teachers are provided sufficient non-instructional time, and five in ten teachers (51 percent) and principals (47 percent) “disagreed” that teachers have sufficient instructional time to meet the needs of all students, or to complete the curriculum for their subject(s) and/or grade (54 percent and 49 percent, respectively).

But while there are similarities, significant differences in perceptions are evident. The greatest gaps in perception between teachers and principals appear to be most common in the areas of teacher empowerment and school leadership (Table 14)—the two most frequently cited areas that teachers said were most important to them in making decisions regarding their employment plans (see Figure 5).

- Principals were nearly twice as likely as teachers to agree the school leadership consistently enforces rules for student conduct (48 percent of teachers and 95 percent of principals), that teachers are meaningfully involved in decision making about educational issues (44 percent and 91 percent, respectively), and that school leadership shields teachers from disruptions, allowing teachers to focus on educating students (48 percent and 93 percent, respectively).
- Principals appear to perceive decision making in schools differently than teachers. Only four out of ten teachers agree that teachers are meaningfully involved in decision making about educational issues compared to nine out of ten principals. While fewer principals agree that there are effective processes for making group decisions and solving problems (eight out of ten), they are still almost twice as likely to agree as teachers.

Table 14. Teacher and Principal Perceptions of Teaching, Learning and Leading Conditions

Mass TeLLS Questions	Percent Agreeing	
	Teachers	Principals
The school leadership consistently enforces rules for student conduct.	47.5%	95.2%
Teachers are meaningfully involved in decision making about educational issues.	43.7%	90.8%
School leadership shields teachers from disruptions, allowing teachers to focus on educating students.	47.9%	93.0%
Teachers feel comfortable raising issues and concerns that are important to them.	56.2%	95.8%
Teachers are recognized as educational experts.	55.1%	93.8%
In this school we take steps to solve problems.	61.4%	97.1%
The faculty has an effective process for making group decisions and solving problems.	42.9%	78.1%
Teachers receive feedback that can help them improve teaching.	62.5%	95.9%
Teachers are encouraged to participate in professional leadership activities.	48.4%	79.9%

Note: Table 14 is organized in order of the greatest difference between teachers and principals’ perceptions and highlights survey questions where the greatest differences arose.

These findings do not imply that principals are unwilling to address working conditions in their schools, but rather that they do not perceive that they are issues to the same extent as teachers. Therefore, it should be no surprise that more has not been done to prioritize these issues in some buildings.

Principals are not only more likely to report that positive working conditions are present, but also that school leadership—a concept that includes, but is not limited entirely to the principal—makes sustained efforts to address any teacher concerns that exist (Table 15)

Table 15. Teacher and Principal Perceptions of School Leadership Efforts to Address Teaching and Learning Conditions

School Leadership Makes a Sustained Effort to Address Teacher Concerns About:	Percent Agreeing	
	Teachers	Principals
Empowering teachers	43.5%	94.8%
Leadership issues	42.7%	93.7%
The use of time in my school	44.7%	94.1%
Facilities and resources	51.1%	94.9%
Professional development	51.5%	91.6%
New teacher support	54.1%	93.7%
Teaching and learning issues	60.1%	98.2%

Note: Table 15 is organized in order of the greatest difference between teachers and principals' perceptions.

These wide disparities between the perceptions of principals and teachers have been documented in other studies of teaching conditions (Hirsch & Emerick, 2007, 2006b,c). The data here indicate a need to consider leadership and empowerment in school improvement planning. These findings also call for school-based, data-driven conversations about working conditions, as well as professional development for both principals and teacher leaders. Until all educators can agree on the relative presence of positive working conditions, sustained reforms to improve school climate will not be prioritized.

Consider the convergence of findings related to school leadership:

- First, as previously noted, educators indicate that school leadership is a critical influence on their future employment plans (Figure 6).
- Second, teachers report that school leadership efforts to address teaching conditions are least likely to occur in the areas of leadership (43 percent) and empowering teachers (44 percent), the second most frequently cited factor influencing teachers' future employment plans (Table 15).
- Third, the greatest gaps between teacher and principal perceptions about school leadership efforts to address teacher concerns are in the same two areas: school leadership and teacher empowerment (51 percent difference in both cases) (Table 15). Principals are more likely than teachers to indicate that sustained efforts are being made by the leadership to address these concerns.

Elementary school educators are more likely to note the presence of many important teaching and learning conditions in their school.

Addressing issues related to school leadership effectiveness, particularly in the areas of creating supportive, predictable school environments where teachers are engaged in classroom and school decisions is important to retaining teachers.

School leadership clearly shapes teaching conditions in Massachusetts schools. Other factors as well—years of school level and experience—appear to influence educators' perceptions of whether or not critical teaching conditions are in place within a school.

Educators in Elementary Schools Are More Positive about Teaching Conditions in All Areas but Time

Analyses of Mass TeLLS results by school level,¹ demonstrate many differences in the presence of teaching conditions across elementary, middle, and high schools. Elementary school educators, generally, are more likely to note the presence of many important teaching and learning conditions in their schools than middle and secondary school educators, particularly in the areas of facilities and resources, professional development, school leadership, and empowerment (Table 16).

- Elementary educators are more likely than their middle or high school counterparts to agree that professional development lead to new instructional strategies and help improve student learning (two-thirds of elementary teachers vs. half of secondary teachers).
- Elementary educators are less likely to believe that external factors such as tardiness, absences and language barriers affect students' ability to learn.
- Elementary educators are more likely to note effective decision making processes (about one-half in elementary schools versus one-third in secondary schools) and agree that steps are taken to solve problems (two-thirds and one-half respectively).
- Elementary teachers are less likely than middle and high school teachers to report that they have sufficient time in their school day to meet the needs of all of their students. Fewer elementary educators note that the teachers in their schools have sufficient instructional time (about one-third of elementary educators and one-half of secondary) during the regular school work day to meet the educational needs of all students and complete the expected curriculum during the year.

Table 16. Percentage of Educators Agreeing Teaching and Learning Conditions Are Present by School Level

Mass TeLLS Questions	Percent Agreeing		
	<i>Elementary</i>	<i>Middle</i>	<i>Secondary</i> [†]
Professional development has proven useful to YOU in your efforts to improve student achievement.	65.5%	57.4%	49.5%
Excessive tardiness significantly affects the ability of students in this school to learn.	60.8%	66.0%	76.6%
Professional development has provided YOU with strategies that you have incorporated into your instructional delivery methods.	68.8%	61.0%	53.1%
Excessive absences significantly affect the ability of students in this school to learn.	63.3%	70.6%	78.5%
The faculty has an effective process for making group decisions and solving problems.	50.2%	45.4%	35.6%
Teachers have sufficient instructional time to meet the needs of all students.	33.1%	42.6%	46.6%
In this school we take steps to solve problems.	67.6%	65.0%	55.4%
Language significantly affects the ability of students in this school to learn.	61.1%	51.6%	49.1%
The school leadership consistently enforces rules for student conduct.	54.8%	50.2%	43.1%
MCAS and other student data are used to improve instruction.	72.4%	73.6%	60.8%
Teachers have sufficient instructional time to complete the curriculum for their subject(s) and/or grade.	31.9%	38.7%	43.4%

† Of the 352 schools falling into the “secondary school” category, two were grades 5-12, 14 were grades 6-12, 36 were grades 7-12, and another eight were grades 8-12. Furthermore, note that schools 14 schools with grades PK, K, or 1-12 are not reported in these analyses.

The Least-Experienced Teachers Are the Most Positive About Whether Supportive Teaching Conditions are Present

In general, the least-experienced teachers (those in their first year of teaching), followed by the most-experienced teachers (those with 20+ years of experience) are the most likely to agree that positive teaching and learning conditions are present in their schools.

On most questions, teachers in their first year are somewhat more positive than their colleagues about time, empowerment, leadership, and professional development issues. Teachers with 4 to 10 years of experience tend to be the least likely to agree with positive statements about their teaching conditions.

The areas where the greatest differences emerge based on experience tend to be around issues of health of the work environment, opportunities to learn from one another, trust, and time (Table 17). For example, less than half of teachers in the middle and end of their career reported that teachers have the opportunity to learn from one another, compared to about two-thirds (66 percent) of teachers in their first year. Additional trends include:

- Many of the variations in responses, when examined by years of experience, appear to be due to first-year teachers having differing perceptions from those of all other teachers. First-year teachers, in particular, seem to be much more likely than more experienced teachers to agree that teachers and staff work in a healthy school environment, that teachers have opportunities to learn from one another and are trusted to make decisions about instruction, etc.
- In a few areas, the most veteran teachers (20+ years experience) are the most negative about their teaching conditions, particularly around issues specific to instruction and the health and cleanliness of the school environment. For example, these veteran teachers were the least likely to report that teachers: are trusted to make sound professional decisions about instruction; have sufficient instructional time to meet the needs of all students and to complete the curriculum for their subject(s)/grade; have sufficient access to professional support; and that the school environment is healthy, clean and well-maintained.

Table 17. Perception of Teachers About Teaching Conditions by Years of Experience

Mass TeLLS Questions	Percent Agreeing					
	First Year	2-3 Years	4-6 Years	7-10 Years	11-20 Years	20+ Years
Teachers and staff work in a school that is environmentally healthy.	62.3%	57.3%	52.0%	48.6%	46.3%	44.9%
Teachers are provided opportunities to learn from one another.	66.2%	56.0%	50.9%	48.8%	46.9%	49.3%
Teachers are trusted to make sound professional decisions about instruction.	76.2%	69.9%	67.3%	64.3%	61.3%	59.4%
MCAS and other student data are used to improve instruction.	60.3%	63.0%	63.8%	67.5%	70.1%	74.4%
Teachers have sufficient access to a broad range of professional support (professional) personnel.	71.3%	64.9%	61.9%	59.7%	58.6%	57.3%
Adequate time is provided for professional development.	50.8%	44.6%	40.6%	38.8%	38.3%	37.4%
Opportunities for career growth within the teaching profession (other than administration) are available to me (e.g., mentor, academic coach, etc.)	64.5%	57.5%	52.9%	51.4%	51.7%	51.6%
Teachers have time available to collaborate with their colleagues.	50.0%	43.1%	39.0%	37.1%	37.2%	37.7%
The school leadership consistently enforces rules for student conduct.	57.8%	50.0%	45.0%	47.1%	50.2%	53.6%
Teachers and staff work in a school environment that is clean and well maintained.	70.0%	65.1%	61.7%	59.8%	58.2%	57.4%

Note: Responses are organized in the order of the greatest difference between perceptions of first year teachers and teachers with 4-6 years experience in response to this question on the survey.

Influences on the Presence of Positive Teaching and Learning Conditions

Schools serving high-poverty student populations (Hanushek and Rivkin, 2007; Hirsch 2007, 2006a,b) often struggle to provide the types of teaching conditions that attract and retain teachers. This section analyzes four areas that could influence the ability of schools to provide supportive teaching environments: poverty, urbanicity, accountability status and the presence of supports for principals.

Many of the influences analyzed appear to overlap. High-poverty schools are more likely to be located in cities and the preponderance of schools on action plans to improve performance are Title I in urban areas. Therefore, many of these findings are consistent across all three areas. Further analyses will be conducted that control for these factors to see which have an independent and significant influence on the presence of teaching and learning conditions. Further, other influences such as teacher salaries and school size will be examined for the final report.

Schools Serving Low-Income Children Struggle to Provide Quality Teaching Conditions

Previous studies have demonstrated that schools serving high-poverty populations are less likely to have the supportive, trusting environments necessary to retain high-quality teachers (Hirsch and Emerick, 2007a,b, Hanushek, Rivkin, Kane, 2007).

In Massachusetts, it appears too that educators in high-poverty schools are significantly less likely to agree that they have necessary teaching and learning conditions in all factor areas¹, particularly in the area of readiness (Table 18).

Table 18. The Presence of Teaching Conditions by Poverty

Poverty Quartiles ²	Readiness Factor Mean	Leadership Factor Mean	Support for Professional Practice Factor Mean	Workload Factor Mean
Quartile I (Low Poverty) (0-7.8% FRL)	2.62***	3.51**	3.37***	4.00***
Quartile II (7.9-19.2% FRL)	3.08***	3.46**	3.18***	4.06***
Quartile III (19.3-53.2% FRL)	3.66***	3.29**	3.10***	4.18***
Quartile IV (High Poverty) (53.4%-97.0% FRL)	4.15***	3.30**	3.01***	4.24***

* Significantly different than one other poverty categories at the p<.05 level, two-tailed ANOVA
 ** Significantly different than two other poverty categories at the p<.05 level, two-tailed ANOVA
 *** Significantly different than all other poverty categories at the p<.05 level, two-tailed ANOVA

Note: For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

The disparity in the Readiness Factor is particularly wide, with a difference in means of more than 1.5 on a one-to-five scale, much wider than in the areas of school leadership, workload or support for professional practice (which encompasses concepts related to professional development, facilities and resources and available time). Educators in high-poverty schools are much more likely to agree that external circumstances influence the ability of their students to learn within the school environment (Table 19).

- While almost four out of five educators in high-poverty schools agree that violence outside of the school affects student learning, only one out of seven in the lowest-poverty schools note similar perceptions.
- Educators in high-poverty schools are roughly three times more likely to agree that violence, poverty, language and transiency affect student learning than those in low-poverty schools.
- While there are still large gaps on the proportion of educators agreeing, it appears that excessive tardiness, absenteeism, community support and academic preparation are viewed as important influences on student learning in schools serving all children.

Table 19. Perceptions of Circumstances Influencing Student Ability to Learn by Poverty of Students Served

Educator Agreement that the Following Circumstances Affect the Ability of Students to Learn in Their Schools	Low Poverty	Quartile II	Quartile III	High Poverty	Difference Between High and Low Poverty
Violence outside of the school	16%	26%	48%	78%	62%
Poverty	24%	47%	75%	85%	61%
Language	29%	39%	67%	87%	58%
Transience/mobility	20%	34%	58%	77%	57%
Health issues	32%	41%	53%	69%	37%
Excessive tardiness	50%	62%	71%	83%	33%
Excessive absences	52%	65%	75%	85%	33%
Community support	52%	57%	62%	73%	21%
Academic preparation	69%	76%	80%	84%	15%

When examining individual questions on the Mass TeLLS, further differences between high- and low-poverty schools are evident (Table 20). In particular, educators in the highest-poverty schools are far less likely to note support from families and the community in which they teach. Only one in six educators in high-poverty schools agree that families help students achieve educational goals compared to three-quarters in low-poverty schools. One-third of teachers in high-poverty schools agree that they are supported by their community compared to two-thirds in low-poverty settings. Additionally:

- There are significant differences in the school environment between high- and low-poverty schools. Educators in more-affluent schools were much more likely to agree their school environment was physically safe, environmentally healthy and clean.

- Educators in high-poverty schools were less likely to note that they had necessary resources in the areas of communication technology and instructional materials.
- Four out of five educators (82 percent) in more affluent schools agree that the curriculum taught meets the needs of students compared to two-thirds (65 percent) in high-poverty schools.

Collectively, these trends appear to influence overall perception of the schools, with 85 percent of educators in more-affluent schools agreeing their schools are good places to work and learn compared to 68 percent in those serving high-poverty populations.

Table 20. Mass TeLLS Questions by Poverty of Students Served

Mass TeLLS Question	Quartile I (Low Poverty)	Quartile II	Quartile III	Quartile IV (High Poverty)
Families help students achieve educational goals in this school	74%	50%	31%	17%
Teachers are supported by the community in which they teach	68%	51%	45%	32%
Teachers and staff work in a school environment that is physically safe	81%	79%	74%	59%
Teachers and staff work in a school that is environmentally healthy	57%	54%	49%	37%
Teachers have access to reliable communication technology including phones, faxes and email	70%	66%	61%	51%
Teachers and staff work in a school environment that is clean and well maintained	67%	65%	60%	48%
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access	65%	58%	54%	47%
Teachers have sufficient access to appropriate instructional materials and resources	69%	59%	56%	5%
The curriculum taught meets the needs of students	82%	78%	73%	65%
Overall, my school is a good place to work and learn	85%	81%	75%	68%

Note: Items are ordered based on the greatest disparity between Quartile I (low poverty) and Quartile IV (high poverty) schools, excluding items from the readiness and workload factors.³

While there are great disparities, some teaching conditions are similar across all schools in Massachusetts, regardless of the poverty of students served.

- Educators in both groups share similar perceptions around some instructional issues. About nine in ten educators in all school poverty quartiles agree that the curriculum taught is aligned to standards in Massachusetts. Similarly, about six in ten (57 percent in low-poverty schools and 59 percent in high-poverty schools) agree that MCAS and other student data are available in time to influence teaching.

- About half of educators in high- and low-poverty schools agree that professional development provides teachers with the knowledge and skills most needed to teach effectively and that school leadership makes sustained efforts to address teacher concerns about professional development.
- Similar factors appear to influence future employment plans across all schools, especially adequate support from school leadership, student behavior, and stronger mentoring relationships.

Educators in Suburban Schools Report More Positive Teaching Conditions

Studies have shown that more urban areas are less likely to have important teaching and learning conditions present. That appears to be the case in Massachusetts as well. Schools in cities (i.e. Boston, Springfield, Worcester, etc.) were more likely to note that external factors influence student readiness to learn, that numerous factors contribute to their workload and that they have less support within school leadership or for their professional practice (Table 21).

Table 21. Impact of Urbanicity on the Presence of Teaching Conditions

Urbanicity Category ⁴	Readiness Factor Mean	Leadership Factor Mean	Support for Professional Practice Factor Mean	Workload Factor Mean
Urban (453 Schools)	3.99**	3.32*	3.05**	4.22**
Suburban (589 Schools)	2.98**	3.46**	3.23*	4.07*
Rural (147 Schools)	3.09**	3.34*	3.22*	4.09*

* Significantly different than one other poverty categories at the p<.05 level, two-tailed ANOVA
 ** Significantly different than two other poverty categories at the p<.05 level, two-tailed ANOVA
 *** Significantly different than all other poverty categories at the p<.05 level, two-tailed ANOVA

Note: For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

Several trends related to urbanicity are apparent.

- The greatest disparities, as was the case with poverty, occur in the area of readiness. Educators in cities are much more likely than either rural or suburban educators to agree that poverty, language, tardiness and other issues external to the school significantly affect the ability of students to learn.

- Educators in cities were less likely to note the presence of teaching conditions than either suburban or rural locales in all areas, except leadership (where cities and rural areas were similar).
- Rural school educators were more likely to share perceptions about conditions with suburban than urban educators. The greatest differences could be seen in the areas of class sizes and non-instructional time available (where rural educators were more positive). Suburban educators were more positive about school leadership’s ability to address teacher concerns and create trusting environments.

Individual survey item analyses help to better identify areas within each of the factors where educators have differing perspectives across school locale. Certain influences contributed the most to urban educators’ perception that students are affected by external factors in their ability to learn in the school environment. In particular poverty, language and violence outside of the school have an effect on student ability to learn in Massachusetts cities. Urban educators were more than twice as likely as suburban or rural educators to note that poverty (82 percent, 41 percent and 48 percent respectively), violence (69 percent, 41 percent and 26 percent), and language (84 percent, 39 percent and 32 percent) have an impact on the ability of students to learn in their schools.

When excluding readiness and workload influences, further disparities between urban and suburban schools are evident. In particular, community support and safety appear to vary substantially by locale (Table 22).

- Suburban educators were 2.5 times more likely than urban educators to note that families help students achieve educational goals in the schools, and only one-quarter of urban educators agreed that this is true in their school. Further only one-third of urban educators believe that teachers are supported by the community versus more than half in rural (54 percent) and suburban (57 percent) settings.
- Safety, cleanliness, and an environmentally healthy school appear to be greater issues for urban than for suburban educators. In each case, rural educators were more likely than suburban educators to agree that these conditions were present.

Rural school educators were more likely to share perceptions about conditions with suburban than urban educators.

Table 22. Mass TeLLS Questions by Urbanicity

Mass TeLLS Question	Urban	Suburban	Rural
Families help students achieve educational goals in this school	23%	58%	48%
Teachers are supported by the community which they teach	38%	57%	54%
Teachers and staff work in an environment that is safe	64%	78%	82%
Teachers and staff work in a school that is environmentally healthy	41%	54%	58%
Teachers have access to reliable communication technology including phones, faxes and email	54%	67%	66%
Teachers and staff work in a school environment that is clean and well maintained	52%	64%	68%
Teachers are trusted to make sound professional decisions about instruction	56%	68%	66%
The curriculum taught meets the needs of students	67%	79%	77%
The school leadership makes a sustained effort to address teacher concerns about new teacher support	50%	61%	56%
Overall, my school is a good place to work and learn	70%	81%	80%

Note: Questions are ordered based on the greatest disparity between city and suburban locale excluding questions from the readiness and workload factors.

There were similarities, however, across all locales as well.

- Urban, suburban and rural educators attribute many of the same factors as contributing to their workload such as class size increases, data management and student assessment.
- Educators in cities and suburbs had similar perceptions about many aspects of professional development. Urban and suburban educators were equally likely to agree that they are encouraged to participate in professional leadership activities (54 percent and 55 percent respectively), that sufficient resources are available to allow teachers to take advantage of professional development activities (47 percent and 48 percent) and that professional development provides teachers with the knowledge and skills most needed to teach effectively (49 percent and 48 percent).
- Many of the same factors influence future employment plans for city and suburban teachers, in particular mentoring, effectiveness with students, and student behavior.

Commonwealth Priority Schools Struggle to Provide Supportive Teaching Conditions

In 2008, 188 schools in Massachusetts with an Accountability Status of “Corrective Action” or “Restructuring” in the aggregate were identified as Commonwealth Priority Schools (CPS). These schools have failed to make AYP in the aggregate for at least four consecutive years. According to MA Accountability regulations, the district leadership of these schools must submit a “District Plan for School Improvement” for approval by the Massachusetts Board of Elementary and Secondary Education.

One hundred thirty-three of those schools had at least a 40 percent response rate on the survey and therefore have Mass TeLLS data. Almost all of these schools (89 percent) are Title I eligible (at least 30 percent of children on free and reduced lunch) and virtually all (94 percent) are in urban locales.

Comparisons between these CPS schools and all other schools were conducted to provide some indication of whether perceptions of teaching conditions are different in lower-performing schools (Table 23).

Table 23. Differences in the Presence of Teaching Conditions in Commonwealth Priority Schools for 2008-09

School Status	Readiness Factor Mean	Leadership Factor Mean	Support for Professional Practice Factor Mean	Workload Factor Mean
CPS Schools (133 Schools)	4.15	3.18	3.02	4.27
Other Schools (1,056 Schools)	3.28	3.42	3.18	4.11

Note: All differences statistically significant at the $p > .01$ level, two-tailed ANOVA

For the Support for Professional Practice and Leadership Factor Means, a higher mean score indicates greater agreement that positive teaching conditions are in place. For the Workload Factor, a higher mean indicates that educators are more likely to agree that a variety of influences contribute to their workload. For the Readiness Factor, a higher mean score indicates that educators are more likely to agree that factors external to the school influence student ability to learn.

Statistically significant differences were present between CPS schools and other schools with sufficient responses on the Mass TeLLS in all factor areas.

As was the case for high-poverty and urban schools, CPS schools showed the greatest disparity in the area of readiness. CPS schools are twice as likely to agree that violence outside of the school affects the ability of students to learn (79 percent and 37 percent). Additionally, educators in CPS schools noted that transience (78 percent and 43 percent), language issues (85 percent and 51 percent) poverty (85 percent and 53 percent) and health issues (69 percent and 46 percent) were impediments to learning in schools with improvement plans.

In addition to readiness, other important differences between CPS schools and others can be seen (Table 24).

- As was the case in schools serving high-poverty populations and in urban locales, educators were less likely to note the support of the community and families. Only one in seven educators agree that families help students achieve educational goals in their schools and less than one-third agree that teachers are supported by the community they serve in schools in restructuring (compared to nearly half in other schools with sufficient data on the Mass TeLLS).

- Educators in CPS schools indicated issues with the safety of their school environment and the consistent enforcement of rules of student conduct.
- Trust issues appear to be more problematic in CPS schools. Educators in those schools were significantly less likely to note an atmosphere of trust and mutual respect within their schools, agree that they are recognized as educational experts or report that teachers feel comfortable raising issues and concerns that are important to them.

As a result, only 64 percent of educators in CPS schools agreed that their schools are good places to work and learn compared to 79 percent in all other schools with sufficient response rate on Mass TeLLS.

Table 24. Mass TeLLS Questions by Commonwealth Priority Schools for 2008-09

Mass TeLLS Questions	Percent Agreeing	
	CPS Schools	Other Schools
Families help students achieve educational goals in this school.	15%	48%
Teachers are supported by the community which they teach.	29%	52%
Teachers and staff work in an environment that is physically safe.	56%	76%
There is an atmosphere of trust and mutual respect within the school.	64%	52%
The school leadership makes a sustained effort to address teacher concerns about new teacher support.	47%	58%
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.	47%	58%
The school leadership consistently enforces rules for student conduct.	41%	52%
Teachers have sufficient access to appropriate instructional materials and resources.	50%	60%
Teachers feel comfortable raising issues and concerns that are important to them.	50%	60%
Teachers are recognized as educational experts.	51%	59%

Note: Questions are ordered based on the greatest disparity between schools in restructuring and other schools with data excluding readiness and workload factor items.

As was the case with poverty and locale, there were some areas of similarity between CPS schools and other schools in the Commonwealth.

- Educators in both sets of schools had similar perceptions about whether school leadership made sustained efforts to address teacher concerns about leadership, use of time, professional development and empowerment, with responses varying in each category by no more than three percent.
- Opportunities for leadership appear to be similar across schools. Half of teachers (51 percent in CPS schools and 51 percent in other schools) agree that they are encouraged to participate in professional leadership activities and that opportunities for career growth within the teaching profession are available to them (52 percent and 54 percent respectively).

- Only about one-third of educators in both sets of schools agree that there is sufficient time, either to meet the needs of all students (38 percent for CPS schools and 38 percent for other schools) or for instruction to complete the curriculum for their subject and/or grade (37 percent for CPS schools and 35 percent for other schools).
- An overwhelming majority of educators in both sets of schools agreed that the curriculum taught is aligned with the standards (92 percent in schools in restructuring and 94 percent in other schools), while just over half agree that the state administered tests measure the content delivered (55 percent in all schools).

An overwhelming majority of educators in both sets of schools agreed that the curriculum taught is aligned with the standards.

Supported Principals Provide More Positive Teaching Conditions

Principals play a critical role in establishing school policies, setting the tone within the school and providing leadership. About one-third (31 percent) of Mass TeLLS respondents indicated that the principal most frequently provided instructional leadership in their school. While most questions on the survey focus on school leadership (which includes but is not limited to the principal) a series of questions for principals only were asked to better assess the support they receive as school leaders. Almost 900 principals across Massachusetts responded.

- One-third (32 percent) of responding principals were in their first three years and about one-quarter (28 percent) have more than ten years' experience.
- Two-thirds (64 percent) have been a principal in their district for six years or less. Four out of ten (39 percent) have served as a principal in two or more schools in their careers.
- Of the responding principals, 43 percent are from cities, 52 percent from suburbs, and 13 percent from rural areas, similar to the distribution of schools across locales overall (see Table 1).

Principals in Massachusetts are generally positive about several aspects of the support they receive that enable them to create positive teaching conditions in their schools. Consider the following:

Principals in Massachusetts are generally positive about several aspects of the support they receive that enable them to create positive teaching conditions in their school.

- Three-quarters of principals (73 percent) agreed that their schools had a sufficient number of licensed staff to meet the educational needs of their students. Over half agreed they had a sufficient number of support staff (58 percent) and received instructional resources commensurate to meet the needs of students (56 percent).
- Eight out of ten principals agreed that they are involved in decisions that directly impact the operations of their schools (82 percent) and are actively involved in district decisions about educational issues (77 percent). Principals noted that they and other school leaders play a large role in many decisions that influence teaching conditions such as evaluation (98 percent), establishing and implementing policies for student discipline (89 percent), and establishing the school schedule (88 percent) and budget priorities (82 percent). Eighty-five percent of principals agreed that their schools are provided sufficient data and information to make informed decisions.
- Three-quarters of principals agree that their district encourages cooperation amongst schools (76 percent), and that there is an atmosphere of trust and mutual respect within their district (71 percent). Eight out of ten agree that central office provides principals support when they need it.

- Seven out of ten principals (69 percent) agree that professional development opportunities are made available to them and two-thirds believe those opportunities provide them with the knowledge they need to be effective (67 percent). Principals report the most need for professional development in closing the achievement gap (67 percent), data-driven-decision making (49 percent), and teacher remediation/coaching (41 percent). While many have received ten clock hours or more of professional development around instructional leadership (73 percent), data-driven decision making (52 percent), and student assessment (51 percent), far fewer have received support for school scheduling (8 percent), staffing (9 percent), budgeting (12 percent) and teacher remediation (21 percent).

Principals' greatest concerns, like teachers, are in the area of time. Only three out of ten principals agree that they have sufficient time to focus on instructional leadership issues. Not surprisingly, six out of ten principals report spending more than ten hours in an average week on administrative duties and one-third spend at least five hours in meetings with families and the community. Three-quarters (73 percent) spend three hours or less in an average week on instructional planning with teachers and four out of ten (43 percent) spend three hours or less observing and coaching teachers.

Approximately 700 of the principals who answered questions specific to them about district supports worked in schools where at least 40 percent of the faculty responded to the survey. Comparisons were made on select questions on the presence of teaching conditions in their schools between principals who reported positive supports and those who did not. While more sophisticated analyses will be conducted for the final report¹, it appears that principals who report more positive conditions themselves are able to provide better teaching conditions for their faculty in some areas (Table 25).

- In schools where principals reported that they had a sufficient number of licensed staff, the faculty was significantly more likely to agree that they had reasonable class sizes, sufficient resources and that their schools were good places to work and learn.
- Educators were more likely to have sufficient instructional time and access to instructional technology in schools where principals agreed that central office provided them with support when they needed it.
- Faculties were more likely to agree that they had sufficient non-instructional time and their schools were safe when principals agreed that the district trusted principals to make sound professional decisions about instruction.

Only three out of ten principals agree that they have sufficient time to focus on instructional leadership issues.

Table 25. The Presence of Positive Teaching Conditions Within a School by Principal Support in Key Areas

Mass TeLLS Question	Mean in Schools Where Principals Agree	Mean in Schools Where Principals Disagree
Central office provides principals support when they need it		
Teachers have sufficient instructional time to complete the curriculum for their subject(s) and/or grade	2.70**	2.53
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access	3.34**	3.03
Facilities help students achieve educational goals in this school	3.11**	2.73
There is an atmosphere of trust and mutual respect within the school	3.59	3.50
Overall, my school is a good place to work and learn	4.05	3.98
My school has a sufficient number of licensed staff to meet the educational needs of our students		
Teachers have reasonable class sizes	3.36**	2.90
Teachers have sufficient access to instructional technology, including computers, printers, software and internet access	3.38**	3.01
Teachers are supported by the community in which they teach	3.32**	2.96
Sufficient resources are available to allow teachers to take advantage of professional development activities	3.11**	2.94
Overall, my school is a good place to work and learn	4.07**	3.90
In this district, principals are trusted to make sound professional decisions about instruction		
The non-instructional time provided for teachers in my school is sufficient	2.67*	2.54
Teachers and staff work in a school environment that is physically safe	3.98**	3.71
Families help students achieve educational goals in this school	3.10*	2.84
The faculty are committed to helping every student learn	4.52	4.47
Overall, my school is a good place to work and learn	4.05	4.00
<p>* Difference significant at the $p < .05$ level, two-tailed ANOVA ** Difference significant at the $p < .01$ level, two-tailed ANOVA</p> <p>Note: Based on an initial set of questions from the principal only items about general support. Questions from the Mass TeLLS are those with the greatest disparity from select sections of the survey.</p>		

The amount of time spent on instructional and administrative duties has some influence on the perceptions of teaching conditions by their faculty. Principals reporting that they spent more than three hours on instructional planning teachers had a significantly higher mean on the Support for Professional Practice Factor (3.17 versus 3.27).²

Recommendations

Governor Patrick, the Commonwealth and the coalition partners initiating and promoting Mass TeLLS have captured the perceptions of more than 40,000 educators about the teaching conditions in their schools. What was found was educators who believe they and their colleagues are committed to helping children and that their schools are good places to work and learn. However, issues related to school decision making, teacher empowerment, sufficient resources and support were also documented. These issues are especially important given analyses throughout the report that demonstrate strong connections between the presence of these conditions, student learning and teacher employment plans. The conditions teachers face in schools and classrooms, though often overlooked, are essential elements to student learning and teacher retention.

Many of the over 1,200 schools with Mass TeLLS data have examined their results and have begun the difficult work of identifying issues and developing school improvement plans to address them. The Commonwealth has facilitated this process by investing in assistance to school teams in select school districts. These schools have participated in professional development specifically on creating positive teaching conditions. Additionally, with the public release of this report and the school and district data, workshops on understanding and utilizing the TeLLS data have been conducted by the Coalition partners.

These efforts are noteworthy and represent a significant investment on behalf of the Commonwealth and the Mass TeLLS coalition in responding to the state's educators. But schools, districts and the Commonwealth can and should do considerably more toward improving teaching, learning and leading conditions. This report has demonstrated that these efforts could be important toward improving student achievement and stemming teacher attrition. Given the overwhelming teacher recruitment and retention challenges faced by many Massachusetts districts, systematic and sustained efforts to improve teaching conditions are a necessity.

Recommendation 1. Ensure Teaching Conditions Are a Part of Proposed Reform Efforts to Recruit and Retain Teachers

In the Readiness Project Final Report, several recommendations are offered in order to ensure that every student in the Commonwealth is taught by a highly competent, well-educated, strongly supported and effective educator. Several strategies are offered, from differentiated compensation and career ladders, to a fellowship program for math and science teachers and Readiness Centers. The Mass TeLLS report findings provide evidence about the potential effectiveness of these strategies as teacher empowerment, respect and engagement concepts (included in the Leadership Factor) are significant influences on future employment decisions and student learning. Other information, however, provides additional guidance that may help refine these strategies.

- ***Create leadership opportunities for teachers in decisions that influence their classroom, school and profession.*** A “statewide career ladder that rewards educators who advance along a career path,” is proposed in the Readiness Report. Ensuring that accomplished

Schools, districts and the state can and should do considerably more toward improving teaching, learning and leading conditions.

teachers have the ability to shape not only their own practice, but those of others is important, and differentiated staffing could help provide avenues for teacher leaders that do not appear to exist. About half (52 percent) of Mass TeLLS respondents agreed that opportunities for growth within the teaching profession were available.

Teachers, when empowered by school leaders, must be ready to take advantage of these opportunities by making informed decisions that not only improve their classroom, but the school. To do so, teachers must have sufficient time during the school day, to work collaboratively and serve on committees.

- ***Consider areas where teachers can be appropriately engaged in decision making and ensure they have the knowledge and skills necessary to make the right decisions.***

Professional development should be created and delivered by accomplished teacher leaders and administrators who help all educators understand how to create and participate in efficient and effective distributed leadership models. Currently, less than half (48 percent) of educators on Mass TeLLS agree that teachers are encouraged to participate in professional leadership activities. Further, only about one out of seven educators responding to Mass TeLLS has received at least ten hours of professional development over the past two years in participating in professional learning communities protocols.

- ***Ensure policies and practices are in place that make clear how decisions will be made and then clearly communicate the results and rationale back to faculty.*** A majority of teachers on this survey (55 percent) did not agree there were effective processes in place for making group decisions. Teachers will only be partners in decision making if their role is clear and opportunities are available for meaningful input. Reconsidering how School Improvement Teams are selected and operate may be a place to start. More than one-third (37 percent) agree that teachers play a small role or no role at all in school improvement planning.

Teachers must have sufficient time during the school day to work collaboratively and serve on committees.

While competitive grants and other financial incentives intended to close the gap between the private and public sector opportunities and encourage teaching in hard-to-staff schools and subjects are important, non-financial incentives should also be considered. Ensuring at least five hours of planning time per week, a reduced teaching load and providing additional support personnel for students were reported as “extremely effective” incentives to working in a hard-to-staff school by nearly half of teachers responding to the survey

- ***Include non-financial incentives that address teaching conditions as part of efforts to recruit and retain teachers in hard-to-staff schools.*** Create state programs, or use funds currently appropriated, to offer other financial and non-financial incentives, not just bonuses and differentiated pay. For example, create funds for hard-to-staff schools, available by a Request for Proposal, to be used to assist schools in creating more positive teaching and learning conditions (i.e. additional support personnel, customized professional development, etc.).

Consider other non-financial incentives that may also lead to reforms that affect student performance. Lower student teacher ratios were significant in explaining school-level achievement with the statistical models presented. Targeted class size reduction or differentiated staffing ratios that allow for more planning time, or support personnel can help not only recruit teachers to schools, but address issues which are related to student learning.

- ***Ensure that every new teacher is inducted into the profession.*** New teachers are at the greatest risk for leaving the profession. Although they were more positive about teaching conditions than their more experienced peers, they need more support to be successful. The Readiness Project Report set a short-term goal of establishing a pilot program for districts to provide intensive induction and mentoring to teachers in their first three years of service. Guidelines that establish programs around strong standards with adequate funding will help make those pilots a success. In the meantime, at the very least, minimal standards and support must be established as one out of five new teachers responding to the survey did not receive any mentoring, and of those who did, more than one-quarter never planned instruction with their mentor nor collaborated during the school day.

Recommendation 2. Help School Leadership Establish Positive Teaching and Learning Conditions in Every School

Massachusetts teachers were consistent and strong in their assertions throughout the survey—they want to work in schools organized for their success with leaders who can create a supportive environment where teachers are respected and viewed as experts. Leadership was found to be the most important factors in explaining teachers' employment intentions in the Commonwealth, even more so than the characteristics of the students in those schools. School leaders must be able to create safe, trusting environments where teachers feel supported and engaged in ways that are clearly defined and understood.

- ***Create clear expectations and/or standards for what schools leaders need to know and be able to do in recruiting and retaining teachers as well as creating positive teaching and learning conditions.*** Particular emphasis should be placed on building trust and developing appropriate distributed leadership approaches. Current standards for school administrators and teachers should be assessed to ensure these expectations reflect key competencies for improving conditions. Once reviewed and revised, these standards must be clearly and consistently communicated.
- ***Require preparation programs for school leaders to include coursework and field experiences that will develop the skills needed to create positive teaching and learning conditions, to build supportive school climates, and to establish professional communities.*** All school administration programs should be based on clear, consistent standards for providing aspiring principals with preparation in creating positive teaching conditions and distributed leadership models.

Massachusetts teachers were consistent and strong in their assertions that they want to work in schools organized for their success with leaders who can create a supportive environment where teachers are respected and viewed as experts.

- ***Provide professional development for principals and other school leaders that support efforts to create positive teaching and learning conditions.*** About one in ten principals received ten hours of professional development in the past two years on school scheduling (8 percent) and staffing. More must be done to ensure that administrators have the knowledge and skills to help hire and support teachers.

These recommendations, however, are dependent on finding time for principals to work with their faculty and encouraging district support. Only three out of ten principals agree that they have sufficient time to focus on instructional issues and about three-quarters (73 percent) report spending three hours or less in an average week on instructional planning with teachers. Districts need to support principals, engage them in district decisions and provide them with sufficient staffing to meet the educational needs of their students.

Recommendation 3. Close the Teaching Conditions Gap by Targeting Resources and Engaging Communities in Schools

There is a large and pervasive gap in the educators' reports of the presence of positive teaching and learning conditions based on urbanicity and the poverty of students served. Teachers serving high-poverty populations in urban settings were far less likely to note that the community was engaged and supportive and more likely to report that external factors influenced their abilities to help students achieve. This not only affects their work in the classroom, but contributes to the overall climate of the school and feelings of expertise and respect.

Districts need to support principals, engage them in district decisions and provide them with sufficient staffing to meet the educational needs of their students.

Governor Patrick's Readiness Project Report provides recommended policy reforms in four critical areas. The first goal is to ensure that students are provided the understanding, encouragement, support, knowledge and skills required to exceed state expectations and standards. These reforms will help address teacher perceptions about the influence of violence, poverty, transience and absenteeism on their ability to help students achieve. Gaps identified on Mass TeLLS in community and family support, instructional resources, and safety/student conduct must also be addressed.

- ***Provide resources specifically for high-poverty schools to address working conditions.*** The state and the Mass TeLLS Coalition have provided support in understanding TeLLS data and incorporating reforms into school improvement strategies. Consideration should be given to targeting resources specifically to high-poverty schools to move forward on these reforms, particularly if they are data-driven and address the Readiness and Leadership issues documented in the report.
- ***Involve the community in the analysis and improvement of teaching and learning conditions.*** Professional development and training should not just be targeted at educators, but at the community at large. The business community, higher education and parents are all integral to the success of schools and can be strong, stable partners in long-term working conditions reform. Communication about how teaching conditions data can be used by each of

these audiences (business to promote local schools, universities to make more strategic placement of teacher candidates in supportive clinical settings, etc.) and how *they* can help schools address concerns should be developed and disseminated.

- ***Document successful community engagement practice in schools serving high poverty populations through a thorough examination of teaching conditions data.*** While each school has a different context, much can be learned from schools where teachers have indicated that critical conditions of work are in place and the community is a supportive, engaged partner. With data on over 1,200 schools across the Commonwealth, successful schools could be identified, practices documented, lessons culled, and practical strategies disseminated for improving teaching conditions.

Recommendation 4. Support Schools in Understanding and Improving Teaching Conditions

Mass TeLLS data provides schools, districts and the state with a new resource to identify areas that can become a part of school improvement planning. This data is not about any individual, and it will take the entire faculty within the school to ensure critical teaching conditions are in place (Appendix A). The data should be part of a comprehensive school improvement planning process and aligned with other strategies to ensure schools are staffed with high quality, effective teachers. The Commonwealth has funded the TeLLS Coalition to provide support to select districts to understand and use the data since its release last May. These resources can serve as a springboard to a more concerted, systematic statewide effort to help schools. Some ideas to consider:

- ***Create standards or guidelines for teaching conditions so all schools understand the key elements of building a positive school climate.*** For example, North Carolina has a set of teacher working conditions standards and Ohio has School Climate Guidelines for schools. The Commonwealth should create an advisory board or other body to oversee drafting these standards and coordinating how to assess whether they are present and how they can be improved.
- ***Ensure that teaching conditions data be used as part of the school improvement planning process.*** Data from the survey (or if there was insufficient response, other measures of teaching conditions could be considered) should be encouraged. Models and assistance for School Improvement Teams should be established.
- ***Provide incentives for schools that create data-driven plans to improve teaching conditions.*** A “venture capital” fund (with state and/or private funds) could be created with resources available for schools to improve teaching conditions, thereby encouraging schools to look at and utilize their data. As discussed, high poverty schools should be prioritized given the gaps in conditions documented in the report.

Mass TeLLS data provides schools, districts and the state with a new resource to identify areas that can become a part of school improvement planning.

Recommendation 5. Use TeLLS and Other Mechanisms to Collect Educators' Views on Teaching and Learning Conditions to Inform Local and State Human Capital Decisions

While important data has been gathered through the Mass TeLLS, it is only a snapshot in time. Schools change rapidly. Principal and teacher turnover in many schools is chronic, new policies and practices at the school district and state level change the way schools operate, new businesses move in and out of the community, etc. Gathering data on teaching conditions is essential for monitoring improvements and the impact of new policies and practices. Evidence from North Carolina (where a similar survey has been conducted four times), demonstrates that teaching conditions results improved in schools where educators indicated that they had used prior survey results. These improvements were most evident in the areas included in the Leadership Factor on Mass TeLLS, the factor most critical to teachers' desire to remain working in their current buildings.¹

While important data has been gathered through the Mass TeLLS, it is only a snapshot in time.

- ***Regularly assess and monitor progress on critical conditions identified as having a significant impact on expected teacher retention and student learning.*** Given the scope and expense of conducting an initiative like Mass TeLLS, and the need to give schools time to assess and reform teaching conditions, the state and/or coalition partners should consider conducting a similar survey every other year—as is done in North Carolina and Kansas—that would likely provide sufficient data but not overwhelm educators. In addition to an expansive effort like TeLLS, other steps interim steps could include:
 - Gathering, reporting and monitoring other data sources that influence the teaching and learning conditions in schools that can illuminate the perceptions of educators discussed throughout the survey such as: student teacher ratio, technology, safety indicators, instructional expenditures, expenditures and evaluation of professional development and new teacher support, etc.
 - Utilizing survey questions (or others from validated surveys measuring similar concepts) from Mass TeLLS at the district or school level as necessary to monitor and track how faculty are responding to reforms undertaken.
 - Providing teacher leaders and principals with other opportunities and incentives to conduct action research on similar topics through case studies, and gathering other information on teaching, learning and leading in their school and amongst the school community at large (parents, students, etc.).
- ***Establish an oversight committee of policymakers and practitioners to coordinate the survey, and the design and implementation of strategies teaching conditions.*** Many recommendations have been offered. An explicit and representative group should be created to oversee all aspects of documenting and improving teacher working conditions

Finally, other data must be considered and triangulated when examining findings from Mass TeLLS. One piece of data that would be invaluable, but appears to be unavailable, is annual school level turnover including the reasons provided by teachers when they exit a school or system. Without this data, this report could only assess the impact of teaching conditions on expected turnover from TeLLS data on teachers expected future employment plans. While important and telling, these are no substitute for actual school level teacher turnover information. Collecting turnover data at the state and district level does not account for teacher movements from school to school. It is this turnover, often away from high-poverty, high-minority populations, that is so critical to guiding school, district and state policy. The state's educator data system should be analyzed to ensure that policymakers, practitioners and the public have sufficient information on human capital management in their schools.

The Mass TeLLS data is a compilation of the voices of those who know schools best—the dedicated educators working in them each and every day. With approximately half of the Commonwealth's educators responding to questions about what they want and need to be successful and remain teaching, it is time to listen.

These findings and data across schools and districts should be used to begin conversations about why these perceptions exist, and not to make high-stakes decisions for administrators of staff. These conversations should begin at the school level and go all the way to the State House. Positive teaching conditions, where educators are supported and empowered, are essential to creating schools where teachers and administrators want to work and where students can thrive.

While important and telling, these are no substitute for actual school level teacher turnover information.

Appendix A. ***Memorandum of Understanding for Coalition Members***

October 15, 2008

The Teaching, Learning, and Leading Survey (TeLLS) partners want to ensure that every Massachusetts educator works in and student attends a school that is a great place to teach and learn. Research from across the country has demonstrated that the presence of important teaching and learning conditions is essential for student success and teacher retention. By documenting and analyzing how teachers and principals view their teaching, learning, and leading conditions, educators, stakeholders and policymakers can make evidence-based decisions on policies and practices that will improve student achievement.

It is with this in mind that the Massachusetts TeLLS has been created. By surveying every school-based licensed educator about their teaching and learning conditions, evidence from those who know those conditions best—the dedicated professionals working across the state—can be compiled and analyzed at the school, district, and state levels.

Gathering this information for every school in the state is important.

Massachusetts TeLLS partners will ensure:

- The privacy of all survey respondents. The survey will be confidential and anonymous for all educators. The data is only as helpful as educators are willing to share essential information about their school.
- Data is provided to all educators. All educators will be able to access their school's survey results in order to integrate findings into school improvement planning.
- Tools and assistance are provided by the state, membership organizations and others to ensure that data is used, and used appropriately.
- Data is not used to hold any individual(s) accountable. Teaching, learning and leading conditions result from cultures, decisions and personalities over years. They are bigger than any one person, and it will take everyone in a school to improve them.
- Data is not used to unilaterally and arbitrarily judge a school's effectiveness in any area. Every finding should be considered a lever to drive reform and not to fuel accountability grades or measures. Data should be analyzed with other information to make informed decisions.

Massachusetts TeLLS partners commit to:

- Supporting and promoting Massachusetts TeLLS, including communicating to members the purpose and importance of the initiative and encouraging survey participation.
- Monitoring and proactively promoting the appropriate use of data locally amongst constituent members. If data is used inappropriately or violations of the intent of Massachusetts TeLLS are found, partners will work to address the situation.
- Assisting constituents on using the data to improve teaching, learning, and leadership conditions.
- Sharing this letter or agreement with members so that all will understand the confidentiality of the results and the appropriate use and potential misuse of the data.


Signed by



Signatory for Secretary of Education



Signatory for the AFT Massachusetts



Signatory for The Boston Foundation



Signatory for MASC



Signatory for MASS



Signatory for MRAE



Signatory for MESPA



Signatory for the MSSAA



Signatory for MTA



Signatory for the Rennie Center

Appendix B. ***Validity and Reliability of Mass TeLL Survey***

The analysis presented throughout the report are based on the responses to a survey instrument based on the Massachusetts Teaching, Learning and Leading Survey (Mass TeLLS), but customized to Massachusetts by the Mass TeLLs Coalition Group. Analyses of the psychometric soundness of the Mass TeLL Survey indicate that it is a reliable and valid measure of the presence of teaching conditions in participating schools.

Validity of Mass TeLLS

Examining the validity of Mass TeLLS addresses questions of whether the survey instrument is a true measure of what it is attempting to assess; in this case, the presence of teaching conditions.

Content Validity

Content validity refers to the extent to which a measure represents all facets of a given social concept, in this case, teaching, leading and learning conditions. Mass TeLLS is based on the North Carolina Teacher Working Conditions Survey. In creating the first working conditions survey in 2001, the North Carolina Professional Teaching Standards Commission (NCPTSC) completed a literature review of the role of working conditions on teacher dissatisfaction and which of those conditions contributed to teacher mobility. The work, driven by analyses of state and national survey data from the National Center for Education Statistics' School and Staffing Survey, focused on areas that teachers identified as conditions that drove their satisfaction and employment decisions, including administrative support, autonomy in making decisions, school safety, class size, time, etc. The NCPTSC created 30 state working conditions standards passed by the North Carolina State Board of Education (online at www.ncptsc.org) in five areas: time, empowerment, leadership, time, and facilities and resources.

While the list is by no means exhaustive, those 30 standards served as the foundation for the first survey in North Carolina in 2002. The survey was designed to assess whether or not educators believed that those standards were in place in schools across the state. It is why every educator is assessed and the unit of analysis is the school.

In 2004, the survey was expanded from a 39 question paper/pencil survey on a 1 to 6 scale to a 72 question online survey. Many of the items were "reality" questions, drawn from the National Center for Education Statistics School and Staffing Survey, to see if teachers' reporting of issues such as non-instructional time and professional development received had an impact on their perceptions of whether supportive working conditions were in place.

- In 2004, a sample of educators was asked to rank on an ordinal scale the relevance and importance of each question on the 2004 instrument. Those questions were then compared to the factor analyses to verify the importance of a set of critical conditions in each area of the

survey. The questions rated as most important also had the highest factor loads and most make up the battery of core questions still used in 2008 in Massachusetts and other states.

- Correlations were run between the perceptual and “reality” questions on the survey to better understand teaching conditions. There were statistically significant and meaningful correlations between teachers’ perception of time and how much planning time they received and how many hours outside of the school day they worked. In South Carolina, where more than 160 variables were made available to triangulate the data, it was found that teachers were more negative about the availability of resources when a higher proportion of students were taught in portable classrooms, etc. (Hirsch, 2005)

Construct Validity

To assess the survey to the degree it measures the five theoretical constructs on which it is designed—time, facilities and resources, professional development, school leadership and empowerment—a factor analysis on the data set was conducted to determine if the items separated into five distinct factors or areas of focus. This would be expected if each of the five areas were independent standards. However, previous analyses of similar teaching conditions surveys indicated strong overlap between the school leadership and empowerment sections of the survey.

Using a principal components analysis and varimax rotation procedures, eigenvalues of one or greater were used as the criteria for factor extraction. In the Mass TeLL Survey, a four factor model accounted for the most variance, indicating that there are four distinct survey concepts. We have defined them as Leadership, Readiness, Support and Workload.

The Leadership Factor includes seven questions from the leadership and empowerment sections of the survey that were most important in explaining the presence of leadership conditions that contribute to trusting, supportive environments, problem solving and decision making (Q4.1c,, Q4.1d, Q4.1e, Q5.2b, Q5.3a, Q5.3b, Q5.3f). The Readiness Factor includes seven questions from the school context and readiness section of the survey that were most important in explaining the effect of external influences on students ability to learn (Q7.2b, Q7.2c, Q7.2d, Q7.2e, Q7.2f, Q7.2g, Q7.2i). The Support Factor includes seven questions from the facilities and resources and professional development sections of the survey that were most important in explaining the quality of resources and support for professional learning and practice (Q3.1a, Q3.1b, Q3.1c, Q3.1d, Q3.1e, Q6.1,Q6.9). The Workload Factor included seven questions from the time section that were most important in explaining increases in workload for educators (Q2.9b, Q2.9c, Q2.9d, Q2.9e, Q2.9g, Q2.9i, Q2.9j). For all factors, only questions with factor loadings of 0.4 or higher (indicating strong correlation among questions and thus suggesting they address the same construct or factor) were included.

These results indicate that, if the survey is to be conducted in the future, some items may need to be revised to better reflect the focus area of each concept. However, it is more likely that there is overlap between some sections and concepts, such as teacher empowerment and school leadership. For example, the correlation between response on “teachers are meaningfully involved in decision making about educational issues” in the empowerment section and “Teachers feel

comfortable raising issues and concerns that are important to them” in the leadership is .561. In particular, it appears the quality of school leadership is related to the engagement of teachers in decision making. There is also overlap between the facilities and resources and professional development sections, due largely to professional development questions that focus on resources available—adequate space, time to collaborate, spending—for teachers to take advantage of learning opportunities.

Reliability of Mass TeLLS

Reliability refers to the consistency of measurement. Analyses were conducted measuring the reliability (consistency) of Mass TeLLS for measuring the presence of various components of teaching conditions. Reliability was assessed for subscales within the survey on both the four identified factors.

In order to test the internal consistency of the four major factors (leadership, readiness, support, and workload), Cronbach’s alphas were calculated for each item/question within each factor. Alpha coefficients range from 0 to 1 with higher coefficients indicating higher levels of instrument consistency. All four factors are reliable with alphas above 0.7. The leadership and readiness factors had excellent levels of internal consistency (0.924 and 0.920, respectively), while the support and workload factors both had acceptable levels of reliability (0.792 and 0.755, respectively) (Table A-1).

Table A-1. Reliability Statistics for Survey Reorganized Around Major Factors

Factors	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Inter-Item Correlations	N of Items	Sample Size
Leadership	0.924	0.925	0.636	7	33,998
Readiness	0.920	0.921	0.623	7	33,840
Support for Professional Practice	0.792	0.790	0.349	7	34,401
Workload	0.755	0.764	0.317	7	34,048

Note: Table is organized in descending order by the Cronbach's alpha values based on standardized items. Cronbach's alpha is a measure of the internal consistency of a set of items or survey questions, not single survey items. Cronbach's alpha measure reliability using a single test administration to provide a unique estimate of the reliability for a given test in the absence of being able to conduct a test-retest method, which is impractical in many cases. Alpha is the average value of the reliability coefficients one would obtain for all possible combinations of scaled items when split into two half-tests. The internal consistency estimates attempt to determine how consistently individuals respond to the items measured on a scale. The more consistent within-subject responses are, and the greater the variability between subjects in the sample, the higher the Alpha produced. Alphas above a 0.70 level are generally considered as acceptable.

Appendix C. *Statistical Models for Student Learning*

Models for student achievement examine the relationship between teaching conditions, other school, teacher, and student factors, and student achievement, by school level (elementary, middle, and high). For these models, school-level achievement performance composite scores were regressed onto critical student-, teacher- and school-level factors and teaching conditions factors.

Because student achievement, school, teacher, and student factors, and teaching conditions domain averages were aggregated at the school level, Ordinary Least Square (OLS) regression was used. Hierarchical linear modeling (HLM) is frequently used in analyzing student achievement to account for data that are nested (in classes with teachers, nested in schools, nested in districts, etc.) and therefore not independent of each other. Although Mass TeLLS uses student and teacher level data, these data have been aggregated to the school level. For example, students' free and reduced lunch status is reported as a school-level average. This decision was guided by the fact that the dependent variables employed in these analyses are measured at the school level. The use of school-level data versus students-level data linked to teachers results from the decision to ensure the anonymity of all respondents to the Mass TeLLS Survey. This decision, while potentially limiting some of the types of analyses that could be calculated using this data, promotes high response rates and minimizes threats to internal validity influenced by teacher mistrust in assurances of confidentiality.

The generic linear regression model in these models can be explained as: case specifies that the dependent variable (Composite Performance Index) Y_i is a linear combination of the parameters. For example, in a simple linear regression used to model N data points (observations) there is one independent variable: x_i , and two parameters, β_0 and β_1 :

$$Y_i = \beta_0 + \beta_1 (\text{Student}_i) + \beta_2 (\text{School}_i) + \beta_3 (\text{Teacher}_i) + \beta_4 (\text{Teaching Conditions}_i) + \beta_i, \text{ for } i = 1, \dots, N$$

Where Y_i is the Composite Performance Index, β_0 is the constant, β_{1-4} are the blocks of independent variables and β_i is the error term. Independent variables were entered together, without the use of stepwise or other entry methods. Results were then standardized and converted to a 0 to 100 scale to aid in interpretation of results.

Independent Variables Considered in the Models

Student Variables

- **First Language Not English:** Indicates the percentage of enrollment whose first language is a language other than English. Source: SIMS data as of October 1, 2007
- **Limited English Proficient:** Indicates the percent of enrollment who are limited English proficient, defined as “a student whose first language is a language other than English who is unable to perform ordinary classroom work in English.” Source: SIMS data as of October 1, 2007

- **Low-Income:** Indicates the percent of enrollment who meet ANY ONE of the following definitions of low income: The student is eligible for free or reduced price lunch; or the student received Transitional Aid to Families benefits; or the student is eligible for food stamps. Source: SIMS data as of October 1, 2007
- **Out-of-School Suspension Rate:** The percentage of enrolled students who received one or more out-of-school suspensions. Source: SIMS data as of end of year 2007-08
- **In-School Suspension Rate:** The percentage of enrolled students who received one or more in-school suspensions. Source: SIMS data as of end of year 2007-08
- **Attendance:** Attendance rate indicates the average percentage of days in attendance for students enrolled in grades 1-12. Source: SIMS data as of end of year 2007-08
- **Graduation Rate (high school only):** Indicates the percentage of students who graduate with a regular high school diploma within 4 years. Source: SIMS data as of end of year 2007-08

Teacher Variables

- **Percentage of Core Academic Teachers Identified as High Qualified:** The percentage of staff, measured in “full-time equivalency,” teaching core academic areas that meet the NCLB definition of highly-qualified. To meet the definition teachers must hold a valid Massachusetts license AND demonstrate subject matter competency in the areas they teach. Source: DSSR data as of October 1, 2007
- **Percentage of Teachers Licensed in Teaching Assignment:** Percentage of teachers who are licensed with Provisional, Initial or Professional licensure to teach in the area(s) in which they are teaching. Source: DSSR data as of October 1, 2007
- **Teachers Wanting to Remain:** The percentage of teachers within the school indicating on the Massachusetts TeLLS Survey that they want to “continue teaching at my current school as long as I am able” in response to the question “Which best describes your future intentions for your professional career.” Source: Mass TeLLS Survey

School Variables

- **Total Number of Teachers:** Total number of teachers employed by the district/school, measured in “full-time equivalency.” Source: DSSR data as of October 1, 2008
- **Student/Teacher Ratio:** The October 1 student enrollment to the total number of teachers. Source: DSSR as of October 1, 2007
- **Student Computer Ratio:** The number of students for every “modern” (Type A or B) computer. Source: Tech Plan Update data as of June 20, 2008
- **Internet Access:** The percentage of classrooms with internet access. Source: Tech Plan Update data as of June 30, 2008
- **Urbanicity:** Locale classifications were adapted from the National Center for Education Statistics Common Core of Data with some modification as indicated in the endnotes. Urban (1), Suburban (2), Town (3), Rural (4) so a negative coefficient indicates that the more urban the district, the lower the CPI. Source: Combination of NCES CCD and Department of Elementary and Secondary Education Kind of Community (KOC) codes.

Teaching, Learning and Leading Conditions

- **Leadership:** The mean of questions of the school leadership, context and empowerment sections including Q4.1c, Q4.1d, Q4.1e, Q5.2b, Q5.3a, Q5.3b, Q5.3f. Source: Mass TeLLS Survey
- **Readiness:** The mean of questions from the school context section including Q7.2b, Q7.2c, Q7.2d, Q7.2e, Q7.2f, Q7.2g, Q7.2i. Source: Mass TeLLS Survey
- **Support for Professional Practice:** The mean of questions from the facilities and resources and professional development sections including Q3.1a, Q3.1b, Q3.1c, Q3.1d, Q3.1e, Q6.1, Q6.9. Source: Mass TeLLS Survey
- **Workload:** The mean of questions from the time section including Q2.9b, Q2.9c, Q2.9d, Q2.9e, Q2.9g, Q2.9i, Q2.9j. Source: Mass TeLLS Survey

Dependent Variable

- ***Composite Performance Index (CPI):*** Compiled by multiplying the number of points by the number of students at each performance level, then dividing the total number of points by the total number of students. Points awarded per students include 100 for proficient or advanced on the state's Massachusetts Comprehensive Assessment System (MCAS) (or progressing for MCAS-Alt), 75 for Needs Improvement High (or Emerging on the MCAS-Alt), 50 points for Needs Improvement Low (Awareness on the MCAS-Alt), 25 points for Warning/Failing High, Warning/Failing Low (or Portfolio Incomplete or not Submitted on the MCAS-Alt). CPIs for mathematics and English Language Arts were analyzed. For more information on MCAS see <http://www.doe.mass.edu/mcas/>.

For each model all independent variables were originally entered. Non-significant variables were deleted until the model with the highest variance explained (adjusted R-squared) was found. Therefore, not all independent variables listed above are included in the final models presented. To better understand the amount of variance explained by each variable blocks (student, school, teacher, teaching conditions), the models are presented in totality as well as with only teaching conditions variables in order to provide a full range for the amount of possible variance in the CPI that could be explained by teaching conditions.

Statistical Model Explaining Elementary Mathematics Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Statistical Significance
	B	Standard Error	Beta		
(Constant)	-54.555	28.056		-1.945	.052
Limited English Proficient	-.065	.028	-.071	-2.333	.020
Low-income	-.188	.021	-.492	-8.974	.000
Attendance	1.351	.287	.142	4.711	.000
Out-of-School Suspension Rate	-.334	.065	-.131	-5.166	.000
Percentage of Teachers Licensed in Teaching Assignment	.164	.062	.061	2.669	.008
Student Computer Ratio	.049	.025	.044	1.956	.051
Student Teacher Ratio	-.337	.118	-.069	-2.850	.004
Urbanicity	-1.135	.533	-.066	-2.132	.033
Leadership	1.703	.475	.084	3.586	.000
Readiness	-2.177	.601	-.139	-3.623	.000
Support for Professional Practice	1.139	.548	.051	2.079	.038

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.820	.672	.667	6.5663	.019

Statistical Model Explaining Middle School Mathematics Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Standard. Error	Beta		
(Constant)	-30.490	29.926		-1.019	.310
Low-income	-.304	.023	-.629	-13.123	.000
Attendance	1.435	.290	.200	4.949	.000
In-School Suspension Rate	-.108	.063	-.049	-1.701	.090
Out-of-School Suspension Rate	-.194	.067	-.123	-2.904	.004
Number of Teachers	.050	.021	.064	2.414	.017
Student Teacher Ratio	-.345	.186	-.053	-1.850	.066
Support for Professional Practice	.644	.718	.026	.898	.370
Workload	-5.203	2.264	-.075	-2.298	.023

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.932	.868	.863	4.7765	.005

Statistical Model Explaining Secondary School Mathematics Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Standard Error	Beta		
(Constant)	48.136	23.016		2.091	.038
Low-income	-.242	.029	-.502	-8.425	.000
Attendance	.670	.163	.217	4.120	.000
Out-of-School Suspension Rate	-.207	.064	-.156	-3.241	.001
Percentage of Teachers Licensed in Teaching Assignment	.268	.067	.174	3.981	.000
Student Teacher Ratio	.520	.176	.119	2.945	.004
Urbanicity	-2.503	.813	-.158	-3.079	.002
Leadership	-1.448	.867	-.070	-1.670	.097
Workload	-10.072	3.052	-.161	-3.300	.001

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.849	.721	.709	5.6952	.017

Statistical Model Explaining Elementary English Language Arts Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Standard. Error	Beta		
(Constant)	-25.213	23.346		-1.080	.281
First Language Not English	.101	.027	.181	3.813	.000
Limited English Proficient	-.251	.036	-.298	-6.952	.000
Low-income	-.225	.017	-.631	-13.071	.000
Attendance	1.150	.239	.130	4.804	.000
Percentage of Teachers Licensed in Teaching Assignment	.064	.050	.026	1.266	.206
Student Computer Ratio	.034	.021	.032	1.635	.103
Student Teacher Ratio	-.321	.097	-.070	-3.309	.001
Urbanicity	-1.060	.441	-.066	-2.402	.017
Leadership	1.983	.392	.105	5.057	.000
Readiness	-1.475	.493	-.101	-2.990	.003
Support for Professional Practice	.798	.451	.038	1.771	.077

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.862	.744	.740	5.4099	.018

Statistical Model Explaining Secondary School English Language Arts Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Std. Error	Beta		
(Constant)	71.114	13.010		5.466	.000
First Language Not English	.155	.040	.324	3.921	.000
Limited English Proficient	-.415	.102	-.250	-4.077	.000
Low-income	-.196	.023	-.642	-8.446	.000
Attendance	.388	.097	.197	4.020	.000
Percentage of Teachers Licensed in Teaching Assignment	.100	.041	.100	2.452	.015
Student Teacher Ratio	.293	.104	.106	2.803	.006
Workload	-6.457	1.724	-.161	-3.746	.000

R	R Square	Adjusted R Square	Standard Error of the Estimate	R Square Change
.866	.750	.741	3.4620	.018

Appendix D. Statistical Models for Estimated Teacher Retention

The models on estimated teacher retention examine the relationship between student, school, teacher characteristics and teaching conditions and the proportion of teachers responding to the Mass TeLLS within a school that they want to “continue teaching at my current school as long as I am able” in response to the question “Which best describes your future intentions for your professional career.” These teachers are referred to in the text as “hard stayers.” Teachers who indicated that they would stay “unless something better came along,” considered “soft stayers” were not included for these models after analyses showed distinct differences in perceptions of teaching conditions between the two groups of stayers. Estimated teacher retention was used as actual school-level turnover data was not available.

The generic linear regression model in these models can be explained as: case specifies that the dependent variable (Composite Performance Index) Y_i is a linear combination of the parameters. For example, in a simple linear regression used to model N data points (observations) there is one independent variable: x_i , and two parameters, β_0 and β_1 :

$$Y_i = \beta_0 + \beta_1 (\text{Student}_i) + \beta_2 (\text{School}_i) + \beta_3 (\text{Teacher}_i) + \beta_4 (\text{Teaching Conditions}_i) + \beta_i, \text{ for } i = , \dots, N$$

Where Y_i is the school-level percentage of “hard stayers”, β_0 is the constant, β_{1-4} are the blocks of independent variables and β_i is the error term.

The same blocks of student, school, teacher and teaching conditions variables employed in the student learning models were utilized for the estimated retention models (CPI was used as a school variable in lieu of the hard stayer variable).

For each model all independent variables were originally entered. Non-significant variables were deleted until the model with the highest variance explained (adjusted R-squared) was found. Therefore, not all independent variables listed above are included in the final models presented. As the order in which the variables blocks (student, school, teacher, teaching conditions) are entered influences the amount of variance explained, the teaching conditions block was entered both last and first in order to provide a range for the amount of possible variance in estimated teacher retention that could be explained by teaching conditions.

**Statistical Model Explaining Elementary School
Estimated Teacher Retention**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Std. Error	Beta		
(Constant)	-.435	.429		-1.015	.310
First Language Not English	-.002	.001	-.202	-2.987	.003
Limited English Proficient	.003	.001	.215	3.469	.001
Low-income	-.001	.000	-.168	-3.071	.002
Attendance	.004	.004	.031	.872	.384
Percentage Core Academic Teachers Highly Qualified	.002	.001	.078	2.616	.009
Urbanicity	.018	.010	.073	1.833	.067
Leadership	.149	.009	.507	17.482	.000

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.631	.398	.392	.12912	.243

**Statistical Model Explaining Middle School
Estimated Teacher Retention**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.416	.661		-2.142	.033
Low-income	.001	.001	.114	.971	.333
Attendance	.014	.006	.169	2.290	.023
Number of Teachers	.001	.000	.056	1.038	.300
Urbanicity	.040	.018	.169	2.291	.023
Leadership	.144	.017	.498	8.688	.000
Readiness	-.065	.026	-.266	-2.481	.014
Support for Professional Practice	.023	.017	.079	1.340	.182
Workload	.057	.060	.069	.954	.341

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.703	.494	.473	.11115	.279

**Statistical Model Explaining High School
Estimated Teacher Retention**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Statistical Significance
	B	Std. Error	Beta		
(Constant)	-.399	.294		-1.358	.176
Percentage of Teachers Licensed in Teaching Assignment	.002	.001	.112	1.903	.059
Number of Teachers	.001	.000	.288	5.106	.000
Urbanicity	.038	.015	.175	2.560	.011
Leadership	.153	.016	.543	9.348	.000
Readiness	-.052	.019	-.228	-2.726	.007
Workload	.088	.061	.104	1.444	.150

R	R Square	Adjusted R Square	Standard. Error of the Estimate	R Square Change
.661	.437	.420	.11070	.309

Notes

Introduction

1. Coalition partners in addition to the Governor, Commonwealth of Massachusetts and Massachusetts Teachers Association includes the American Federation of Teachers–Massachusetts, the National Education Association, the Massachusetts Association of School Committees, the Massachusetts Association of School Superintendents, the Massachusetts Secondary School Administrators’ Association, the Massachusetts Elementary School Principals Association, the Massachusetts Business Alliance for Education, the Rennie Center for Education Research and Policy, the Boston Foundation and the Nellie Mae Education Foundation. For more information on the initiative and web links to these partners go to www.masstells.org.

2. The number of questions answered by any one respondent depended on their years of experience and their role in the school (teacher, principal, etc.). Educators may have answered up to 200 specific items about their school.

3. No data was available for 14 schools on the percentage of students eligible for Free and Reduced Lunch.

Trends on the Presence of Teaching Conditions in Massachusetts

1. “Educators” is used in this report only to refer to the aggregated responses all school-based licensed educators who responded to the survey. There were four groups of professionals completing this survey: teachers, principals, vice or assistant principals, and other school-based licensed education professionals.

2. Because Massachusetts was the first site to pilot a school context and readiness section on its working conditions survey, no cross-district data is available for comparison.

3. School leadership was defined on the Mass TeLLS Survey as an individual, group of individuals or team within the school that focuses on managing a complex operation. This may include scheduling; ensuring safe school environment; reporting on students’ academic, social and behavioral performance; using resources to provide the textbooks and instructional materials necessary for teaching and learning; overseeing the care and maintenance of the physical plant; developing and implementing the school budget.

4. For more information on the general survey processes and partners go to <http://newteachercenter.org/tlcsurvey/index.php>. The following table provides information on clients, and response rates for the 2007-2008 school year. Please check individual websites for more detailed information and reports. Each website has essential information about the design of the survey and the representativeness of responses in order to make the most informed decisions about utilizing this data.

State or District Surveying in 2008	Response Rate	Total Participants	Schools with Sufficient Data	Website
Alabama	47%	28,188	1,000	www.take20alabama.org
Fairfax County	58%	8,642	200	www.fcpswcs.org
Illinois	32%	2,977	100	www.tellillinois.org
Kansas	42%	16,656	700	www.kantell.org
Maine	27%	5,136	150	www.tellmaine.org
Massachusetts	46%	39,811	1,200	www.masstells.org
North Carolina	87%	104,249	2,300	www.ncteachingconditions.org
West Virginia	43%	9,842	400	www.westvirginiavital.org
TOTAL	58%	215,501	6,050	www.newteachercenter.org

Cross-state comparisons do not include Fairfax County. Comparisons in other reports will not include data on Illinois given the limited scope of the pilot and the inability to extrapolate findings to the entire state.

Teaching Conditions Influence Student Performance

1. Throughout the report, questions on external influence were excluded in identifying questions with the greatest disparity across subgroups as they uniformly were at the top and masked other trends. Responses to the workload question were not included given the difficulty in drawing conclusions from responses. The question, worded around which influences “significantly contribute to your overall workload” were designed to be discussed at the local level to identify potential factors influencing the amount of instructional and non-instructional time available. As the question is about contribution as opposed to actual workload, they were excluded from the table and discussion within the report.

Teaching Conditions Influence Decisions About Where and Whether to Teach

1. 35,028 educators responded to a question about their future intentions for their professional career. “Stayers” were those who planned to continue working in their current school either as long as possible or until a better opportunity came along; “movers” planned to leave the school or district as soon as possible but to continue teaching; and, “leavers” planned to leave classroom teaching or education all together. In line with recent research by Quartz, et al. (2008) some of the respondents here dubbed “leavers” (over two-thirds of all leavers) could alternatively be thought of as “role changers” because while they are leaving classroom teaching, they indicated that they plan to continue in education but in a different role.

Influences on the Perceptions of Teaching Conditions

1. School level categorizations from the Massachusetts Department of Elementary and Secondary Education were used.

Influences on the Presence of Positive Teaching and Learning Conditions

1. Factor means were created and are used in school, district and state reports as a way to provide a quick snapshot for data review and inquiry. A factor analysis conducted on the results of the seven section survey demonstrated the presence of four significant factors: Leadership (a combination of questions of the school leadership, context and empowerment sections including Q4.1c, Q4.1d, Q4.1e, Q5.2b, Q5.3a, Q5.3b, Q5.3f), Readiness (a combination of questions from the school context section including Q7.2b, Q7.2c, Q7.2d, Q7.2e, Q7.2f, Q7.2g, Q7.2i), Support for Professional Practice (a combination of questions from the facilities and resources and professional development sections including Q3.1a, Q3.1b, Q3.1c, Q3.1d, Q3.1e, Q6.1, Q6.9) and Workload (a combination of questions from the time section including Q2.9b, Q2.9c, Q2.9d, Q2.9e, Q2.9g, Q2.9i, Q2.9j). For a copy of the survey instrument go to www.masstells.org

2. Quartiles were created by examining the approximately 1,200 schools with sufficient response (40 percent) to generate data and dividing them into approximately equal groups based on the percentage of students eligible for Free and Reduced Price Lunch for the 2007-2008 school year (data available through the Massachusetts Department of Elementary and Secondary Education at <http://profiles.doe.mass.edu/selectedpopulations.aspx>). Quartile I (low-poverty) has 298 schools, Quartile II has 295 schools, Quartile III has 296 schools and Quartile IV (high-poverty) has 297 schools. Three schools had sufficient response on Mass TeLLS, but FRPL data was not available.

3. Throughout the interim report, questions on external influence were excluded in identifying questions with the greatest disparity across subgroups as they uniformly were at the top and masked other trends. Responses to the workload question were not included given the difficulty in drawing conclusions from responses. The question, worded around which influences “significantly contribute to your overall workload” were designed to be discussed at the local level to identify potential factors influencing the amount of instructional and non-instructional time available. As the question is about contribution as opposed to actual workload, they were excluded from the table and discussion within the report.

4. Local classifications were adapted from the National Center for Education Statistics Common Core of Data. These classifications are driven from the Census Bureau Topographically Integrated and Geographically Encoded Referencing system (TIGER) and based largely on a school’s proximity to an urbanized area. The NCES eight categorization system was used with some minor alterations made to reflect differences in local based on the Massachusetts Department of Elementary and Secondary Education’s KOC classification and reconsider some areas that did not appear to accurately reflect disparities in the Boston area due to the census constructs being county based. For example, both Belmont and Chelsea, based on proximity to Boston were considered suburbs, yet the two communities are remarkably different in many ways. Districts in the KOC “urbanized centers” categories were added to the city classification and a few districts were reclassified as either suburban or city.

Supported Principals Provide More Positive Teaching Conditions

1. Based on the initial exploratory data examination, further analysis is warranted to fully understand the relationships between principal and teacher data. In order to account for the nested nature of the principal and teacher data, future evaluation will likely include some form of hierarchical linear modeling.

2. Two-tailed ANOVA with $p < .16$.

Recommendations

1. Hirsch, Eric and Scott Emerick with Keri Church and Ed Fuller, *Teacher Working Conditions are Student Learning Conditions: A Report on the 2006 North Carolina Teacher Working Conditions Survey*. Hillsborough, N.C.: CTQ, February 2007.

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