



# Teacher Working Conditions are Student Learning Conditions

*A Report to  
Governor Mike Easley  
on the  
2004 North Carolina  
Teacher Working  
Conditions Survey*

The Southeast Center for Teaching Quality improves student learning by shaping policies through developing teacher leadership, building coalitions, and conducting practical research. To accomplish this mission, SECTQ strives to shape policies that ensure:

- **Students**, no matter what their background or where they go to school, are ready to learn; with
- **Teachers** who are caring, qualified, and competent with vast content knowledge and the ability, through quality preparation and ongoing development and support, to ensure that all children can learn; in
- **Classrooms** that have adequate resources and provide environments conducive to student learning; in
- **Schools** that are designed to provide teachers with sufficient time to learn and work together in collaboration with a principal who respects and understands teaching; in
- **Districts** that have policies and programs that support the recruitment, retention and development of high quality teachers in every school; in
- **States** that have well-funded systems that include rigorous preparation and licensing with evaluation tools that ensure performance based standards are met; in a;
- **Region** that works collaboratively, using common teaching quality definitions, sharing data, and working across state lines to recruit, retain and support high quality teachers; in a
- **Nation** that views teaching as a true profession and values teachers as one of its most important resources.

SECTQ is a regional organization with a national agenda to ensure that all students have access to high quality teaching. SECTQ was established in 1999 and is located in Chapel Hill, North Carolina. To learn more about SECTQ's work, please visit our web site at [www.teachingquality.org](http://www.teachingquality.org).

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# EXECUTIVE SUMMARY

For virtually any business or organization, the conditions in which employees work drive their satisfaction and productivity. Yet, while business often focuses on employee satisfaction, many schools often struggle to address critical working conditions — isolating teachers in classrooms with closed doors, denying them basic materials to do their job, inundating them with non-essential duties, providing them with little input into the design and organization of schools, and offering little opportunity for career advancement and professional growth. Such conditions are closely related to teacher turnover and difficulties in recruiting and retaining teachers.

Under the leadership of Governor Mike Easley, North Carolina became the first state in the nation to study teacher working conditions by surveying those whose opinion matters most on these issues—teachers themselves. First in 2002, and again in 2004, teachers were asked questions about time, facilities and resources, empowerment, leadership and professional development; all shown to have an impact on whether teachers stay in schools and most important, whether students learn.

Governor Easley’s Teacher Working Conditions Initiative provides North Carolina schools and districts with a unique opportunity to make data driven decisions about improving teacher working conditions, and thereby student achievement, through the creation of a stable, high quality teaching force for every classroom across the state. By surveying teachers across the state, data have been gathered to provide customized reports to schools and districts about the state of working conditions in their respective school.<sup>1</sup> These data are essential as different schools are starting from different places and must have different priorities for improving working conditions.

Analysis of the approximately 34,000 survey responses (representing 90 percent of North Carolina schools and 100 percent of school systems) underscores Governor Easley’s assertion that “teacher working conditions are student learning conditions.” This report demonstrates that working conditions are critical to increasing student achievement and retaining teachers. Teachers’ responses on the Working Conditions Survey were significant and powerful predictors of whether or not schools made Adequate Yearly Progress (AYP) and performed well on the state’s ABC school accountability model both in terms of growth and school designation. Working conditions responses were also connected to teacher retention.

Of the various data implications from the survey, six primary findings from the analysis of the teacher working conditions data are included in this report:

1. Teacher Working Conditions Are Important Predictors of Student Achievement.
2. Teacher Working Conditions Makes a Difference in Teacher Retention.
3. Teachers Perceptions of Working Conditions Reflect Actual School Conditions.
4. Leadership is Critical to Improving Working Conditions, but Principals and Teachers Perceive These Conditions Very Differently.
5. Teachers, Regardless of their Background and Experience, View Working Conditions Similarly.
6. Many Aspects of Working Conditions have “Ripple Effects”.

More in-depth analysis of each of the five working conditions areas (time, empowerment, facilities and resources, leadership and professional development) is also provided within the body of this report. From these findings and the domain analysis, recommendations for schools, districts and the state of North Carolina are offered to enhance efforts to improve teacher working conditions.

#### State Level Actions:

1. Provide state funding for the design, dissemination, and analysis of the Working Conditions Survey every other year.
2. Provide assistance to school and district communities to ensure that they know about, access, understand and use the data to improve teacher working conditions.
3. Document and disseminate successful strategies to reform working conditions and ensure resources are made available for school and districts to improve.
4. Invest in what matters most for improving teacher working conditions – high quality leaders who can empower teachers to be included in decision making about instruction and create learning communities that help all students succeed.
5. Consider reforms that directly address teachers’ greatest concerns about their working conditions.

#### District Level Actions:

1. Acknowledge that teacher working conditions matter and commit the time and resources necessary to providing teachers with the environment, resources and support they need to help all students learn.
2. Provide specific opportunities and professional development to ensure that teacher working conditions data is disseminated, understood and ultimately used to inform and drive school reforms.
3. Consider specific district policy changes and resource allocations that can help individual schools being implementing strategies that respond to working condition areas of concern.

#### School Level Actions:

1. Analyze Teacher Working Conditions Survey results and have faculty conversations about their implications.
2. Consider specific policy changes and resource allocations that can help individual schools implement strategies that respond to working condition areas of concern.
3. Include strategies to address teacher working conditions into existing School Improvement Plans.

Findings from this report support the importance of identifying and discussing teacher working conditions. Significant and compelling connections between working conditions and student achievement were documented. Ensuring a qualified teacher for every student is not enough to close the achievement gap. Teachers must have the resources and supports they need to serve all students well, and without comprehensive and sustained efforts to improve teacher working conditions much of the state's notable school reform efforts could go unfulfilled.



# INTRODUCTION

For virtually any business or organization, the conditions in which employees work drive their satisfaction and productivity. Unfortunately many schools in North Carolina face persistent teacher working condition challenges that are closely related to high teacher turnover rates and chronic difficulties in recruiting and retaining teachers.

In North Carolina, the average teacher turnover rate for districts is more than 12 percent and as high as 24 percent in some districts. In individual schools, as many as half the faculty may leave in a given year. The state currently needs to hire approximately 11,000 teachers annually—based not only on student growth and class size reduction efforts, but the need to continually re-staff the classrooms of teachers who leave. More than half of the teachers prepared in North Carolina—through both traditional and lateral entry programs—are no longer teaching five years later.<sup>1</sup> Turnover comes at great expense, both in the negative cumulative effect on student achievement, and as a financial drain to the state and districts that repeatedly prepare, recruit, and support teachers for the same position.

National research also demonstrates the importance of addressing school conditions to improve teacher retention. Teachers who leave schools cite an opportunity for a better teaching assignment, dissatisfaction with support from administrators, and dissatisfaction with workplace conditions as the main reasons why they seek other opportunities.<sup>2</sup> Surveys of 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. In national surveys teachers identified excessive workload, lack of time and frustration with reform efforts as areas in need of focus and reform.<sup>3</sup>

Addressing these working conditions is essential given the connections between these critical factors and efforts to reorganize schools and establish a sense of trust, both of which have been linked to greater teacher effectiveness.<sup>4</sup> The most extensive examination of working conditions data demonstrates, “a clear but difficult lesson: if we want to improve the quality of our teachers and schools, we need to improve the quality of the teaching job.”<sup>5</sup>

While existing national data on teacher turnover is helpful, communities need customized data from their own schools and communities to effectively inform local reform strategies. Governor Easley’s Teacher Working Conditions Initiative provides a unique opportunity for North Carolina communities to receive school, district and statewide data on teachers’ perceptions of their working conditions, along with hard evidence of existing school conditions from reality-based survey questions. What makes the Governor’s initiative so significant is that local communities can learn about working conditions directly from those who are most affected by

them—classroom teachers. By surveying every teacher in the state, enough data can be gathered to provide customized information and reports for individual schools and districts. This data will help schools to consider programs and policies that address the specific concerns of their unique teaching corps.

## History of the Initiative

Governor Easley's Teacher Working Conditions Initiative began with a teacher working conditions survey originally developed and piloted by the North Carolina Professional Teaching Standards Commission in 2001. The Commission, with the support of the State Board of Education, conducted research and focus groups to develop 30 working conditions standards for schools in five broad categories: time, empowerment, professional development, leadership, and facilities and resources (see Appendix A). Focus groups with more than 500 teachers validated the categories or "domains." The original survey was made available to every licensed public school educator in 2002, and it solicited teacher responses on 39 statements regarding working conditions in these five categories.

The findings from that survey demonstrated a level of dissatisfaction across the state with teacher working conditions, particularly related to the amount of time available for teachers to perform their jobs. The survey results indicated that the collective perception of principals was far more positive than teachers' collective perception. Elementary teachers and teachers in smaller schools were more likely to rate their work environment positively.<sup>6</sup>

## Methodology

The survey was conducted for a second time from April-May 2004, with some important changes. The survey was administered online, allowing teachers more time and privacy to complete the survey. The online format allowed the survey to be expanded from 39 to 72 questions on working conditions and eight demographic questions.<sup>7</sup> The survey also added a series of questions that gathered information on actual conditions as well as many based on teachers' perception of their school. These questions were added to better document basic realities facing teachers such as the number of hours of professional development they receive in critical areas and the number of hours worked outside of the school day. The survey drew a number of these new questions from the questions previously asked and validated by the national School and Staffing Survey from the National Center for Education Statistics.

Upon receiving the survey results, a statistical factor analysis was conducted not only to ensure that the survey was well constructed, but also to create domain averages that included only questions that truly explained the working conditions area described. To ensure that questions of greatest concern to teachers were not eliminated by the factor analysis, a stakeholder survey of 30 teachers, administrators and policymakers was conducted. Fortunately, virtually the same questions were identified by both the stakeholder survey and factor analysis as best explaining the working conditions domains. As a result, questions that may have been included in the "time" section of the survey, were either included in the time domain average, moved to another domain that they more aptly described, or entirely dropped from the construction of the domain average.<sup>8</sup>

Data are available online for all schools with a response rate of at least 40 percent (the minimum response threshold ensures anonymity of teachers and allows for generalizations about the

school population). School reports are available for about half of the state's approximately 2,200 public schools, and district level reports are provided for districts with a response rate of at least 30 percent. More than 34,000 educators responded to the 2004 survey, representing more than 90 percent of the state's schools and every school district.

Using the survey, along with several other data sources, SECTQ conducted the analysis described in this report. Individual teacher working conditions surveys were used throughout the analysis, particularly when examining the influence of teacher experience, background and other demographic data. To analyze connections to student achievement, teacher retention, and other data provided by the Department of Public Instruction, a school-level working conditions average was created for the approximately 1,000 schools with a 40 percent response rate or greater. Linear regression and logistic regression models were created based on connections found using simple correlations.<sup>9</sup>

The schools with sufficient response rates for inclusion in the analysis appear to be representative of schools throughout the state of North Carolina (Table 1). They serve approximately the same proportion of students eligible for free and reduced lunch, share the same geographic representation and are slightly smaller than the aggregate state average for all schools.

**Table 1. Comparison of Sample Schools to Overall Population**

	Sample of Schools with 40% or Greater Response Rate	All Schools in North Carolina
Number	1,027	2,164
Mean % Eligible for Free and Reduced Lunch	49.53%	50.64%
Average Daily Membership	550	606
Large City	1.2%	5.7%
Large Town	0.9%	1.3%
Mid-Size City	26.3%	27.0%
Rural	30.7%	28.6%
Small Town	19.3%	18.0%
Suburb of Large City	4.1%	4.5%
Suburb of Mid-Size City	17.3%	14.8%

## About the Report

This report demonstrates that working conditions are critical to increasing student achievement and retaining teachers. Teachers' responses on the Working Conditions Survey were significant and powerful predictors of whether or not schools made Adequate Yearly Progress (AYP) and performed well on the state's ABC tests both in terms of meeting student growth expectations and school designation. Teacher working conditions also help to explain teacher retention. Six primary working conditions findings are documented in the report:

1. Teacher Working Conditions Are Important Predictors of Student Achievement.
2. Teacher Working Conditions Makes a Difference in Teacher Retention.
3. Teachers Perceptions of Working Conditions Reflect Actual School Conditions.
4. Leadership is Critical to Improving Working Conditions, but Principals and Teachers Perceive These Conditions Very Differently.
5. Teachers, Regardless of their Background and Experience, View Working Conditions Similarly.
6. Many Aspects of Working Conditions have “Ripple Effects”.

In addition to the general findings, in-depth analysis of each of the five working conditions domains is also provided. Teachers’ responses are explored, comparisons to 2002 findings are made, general trends are presented and broad recommendations for improvement are offered.

The report concludes with recommendations for the state, districts and schools to improve teacher working conditions. Ultimately, the success of Governor Easley’s Working Conditions Initiative hinges on schools and districts using their specific data to lead discussions with local community stakeholders and make improvements identified as necessary by their own teaching corp. The recommendations are intended to help develop and implement customized, data-driven working conditions reforms—integrated with broader school and district improvement plans.

This report documents that efforts to achieve working conditions reform will prove worth the time and resource allocation, given the importance of teacher working conditions to student learning and teacher retention. Ensuring a qualified teacher for every student is not enough to close the achievement gap. Teachers must have the resources and supports they need to serve all students well, and without comprehensive and sustained efforts to improve teacher working conditions, much of the state’s notable school reform efforts could go unfulfilled.

# WHAT HAS BEEN DISCOVERED ABOUT TEACHER WORKING CONDITIONS

*If I am allowed to utilize my teaching expertise—to draw from what I know will engage and stimulate my students—then students will achieve at levels no one could dream of. If I am hampered...then I can't do what I do best.*

—Member, Teacher Leaders Network in a discussion of teacher working conditions

While the greatest value of the Teacher Working Conditions Survey will be specific data for local schools and districts that shed light on the unique working condition challenges, this analysis provides evidence that using these data are essential to building schools that can help all students learn. In considering these six primary findings from the initiative, policymakers and stakeholders across the state can develop a more complete understanding of how teacher working conditions affect student achievement and teacher retention; how teachers' perceptions of working conditions relate to the realities schools; how teachers and principals view the same working conditions differently; how divergent teacher groups view working conditions similarly and how a single working condition has a “ripple effect” on conditions throughout a school.

## **Finding One: Teacher Working Conditions are Important Predictors of Student Performance**

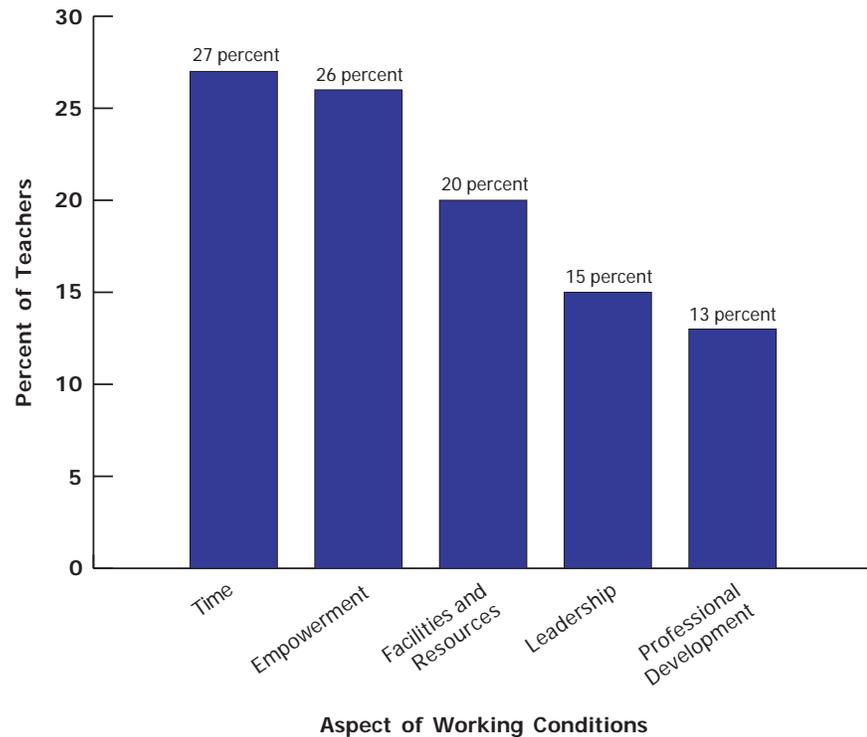
Teachers are clear about the working conditions that they need in order for them to be successful with students (Figure 1). Given sufficient time (27 percent) and control over what they do (empowerment at 26 percent), teachers believe that they can help students learn. In terms of helping students learn, teachers reported that working conditions more associated with overall school context like leadership and facilities were less important than the aspects most directly associated with their classroom.

While teachers' belief that time matters most for improving student achievement should not be marginalized because teachers will act on what they believe – the data indicate that time is the only working condition that is not connected to student achievement when examining basic correlations (Table 2).

In each of the other four working condition domains, teachers in poorer performing schools (as indicated by the three measures of achievement: AYP status, ABC status, and ABC growth) have more negative perceptions of their working conditions. More positive perceptions of working conditions in higher performing schools were found in all domains, except time. The

differences in higher performing schools were all statistically significant, albeit not particularly large. The greatest differences were evident in the area of leadership.

**Figure 1. Teacher's Perception of Which Aspect of Working Conditions Is Most Important in Promoting Student Learning**



**Table 2. Differences in Working Conditions Based on School Performance**

	Not Met AYP	Met AYP	Did Not Meet Growth Target	Met Growth Target	Less than 80% at Grade Level	80% or More at Grade Level
Empowerment*	3.12	3.31	3.14	3.34	3.15	3.35
Facilities and Resources	3.63	3.82	3.68	3.84	3.64	3.86
Leadership*	3.73	3.91	3.74	3.94	3.74	3.95
Professional Development*	3.75	3.88	3.77	3.90	3.76	3.91
Time	2.98	3.01	3.02	3.03	3.03	2.99
Retention	77.7%	80.6%	77.3%	82.1%	77.2%	81.6%
Free and Reduced Lunch	53.7%	48.2%	55.6%	47.5%	57.9%	44.1%
% fully licensed	84.5%	92.0%	83.9%	94.0%	84.7%	93.8%

\*Difference significant at the .01 level for all comparisons (two-tailed test)

Although these correlations indicate that there is a significant relationship between working conditions—as well as other key indicators—and student achievement, they do not speak to the more important question of whether or not working conditions actually help cause greater student achievement. Only by controlling for as many of the multitude of factors that contribute to student learning as possible, can the relationship with teacher working conditions be isolated and causal connections identified.

SECTQ analyzed the Teacher Working Conditions Survey results and other critical variables against various measures of student achievement, such as Adequate Yearly Progress status under the federal No Child Left Behind Act, student achievement growth and ABC school designation status (Appendix B).<sup>1</sup> The following section summarizes the findings from our statistical analysis relative to the impact of teacher working conditions on student achievement after controlling for a key set of variables.

### ***Teacher Working Conditions and AYP Status***

- Survey results for *professional development* were a significant predictor of AYP status for North Carolina schools. For every one point increase on the survey, schools are four times more likely to achieve AYP.<sup>2</sup>
- For every one point increase on the survey in all schools on the *facilities and resources* domain average, schools were three times more likely to achieve AYP.
- *Leadership* was the single greatest predictor of AYP status at the middle school level, more so than school size and teacher retention.<sup>3</sup> For every one point increase on the Working Conditions Survey results in the area of leadership, middle schools were 6.7 times more likely to achieve AYP.

Size also appeared to be an important determinant, with smaller schools more likely to achieve AYP status. Schools making or exceeding their student growth expectations were almost five times more likely to achieve AYP.

### ***ABC Test Student Performance: Growth Status<sup>4</sup>***

- *Professional development* was by far the greatest predictor of ABC status at the middle school level, more so than school size, teacher retention or AYP status. Middle schools were 12.4 times more likely to move up one growth expectation category—either move from not met to meet, or from meet to exceed—for every one point increase in the professional development domain average.

### ***ABC Test Student Performance: School Designation Status***

- *Professional development* matters greatly as to whether students achieve. For every one point increase on the Working Conditions Survey, schools were 10 times more likely to be rated in one of the top school designation categories (School of District, School of Excellence, or Honor School of Excellence, meaning that at least 80 percent of students perform at or above grade level and growth expectations were met or exceeded).

- *Leadership* was a powerful predictor of whether or not a school had high student achievement at the high school level. High schools were 48 times more likely to be included in one of the top three performance designations for every one point increase on the leadership domain average.
- *Facilities and resources* are also significant and meaningful predictors of student achievement in North Carolina schools. Schools were three times more likely to be in one of the top designation categories for every point increase on the survey.

### ***Time and the Unique Relationship with Student Achievement***

Time was a significant predictor of student achievement using all three achievement measures, but high performance was actually more likely to occur in schools where teachers held more negative perceptions about their time. Time was the only working condition not significantly correlated with achievement and retention, yet was found significant in all of the achievement models. Three hypotheses are offered to explain the finding.

1. The questions that comprise the time average are as closely related to class size and student load, as time. Two of the six questions that comprise the time domain focus on those issues and another two address issues of time to work collaboratively with colleagues, as opposed to the amount of time available.<sup>5</sup>
2. Questions comprising the time domain average focus on the *amount* of time available for teachers, not the *use* of available time. Teachers with a significant proportion of time could still have negative perceptions of available time if it is not structured and used to provide opportunities for data-driven, standards-based, content-focused conversation about teaching and learning.
3. While the time domain was significantly and meaningfully correlated with the amount of planning time available to teachers during the school day, it was negatively correlated with time spent outside of school on school-related activities (those involving students as well as grading, instructional planning, etc.).<sup>6</sup> To clarify, teachers who spent more time working outside of school had more negative views of time in general, and therefore the connection to achievement may be related to a backlash against the extra time worked by teachers outside of the school day.

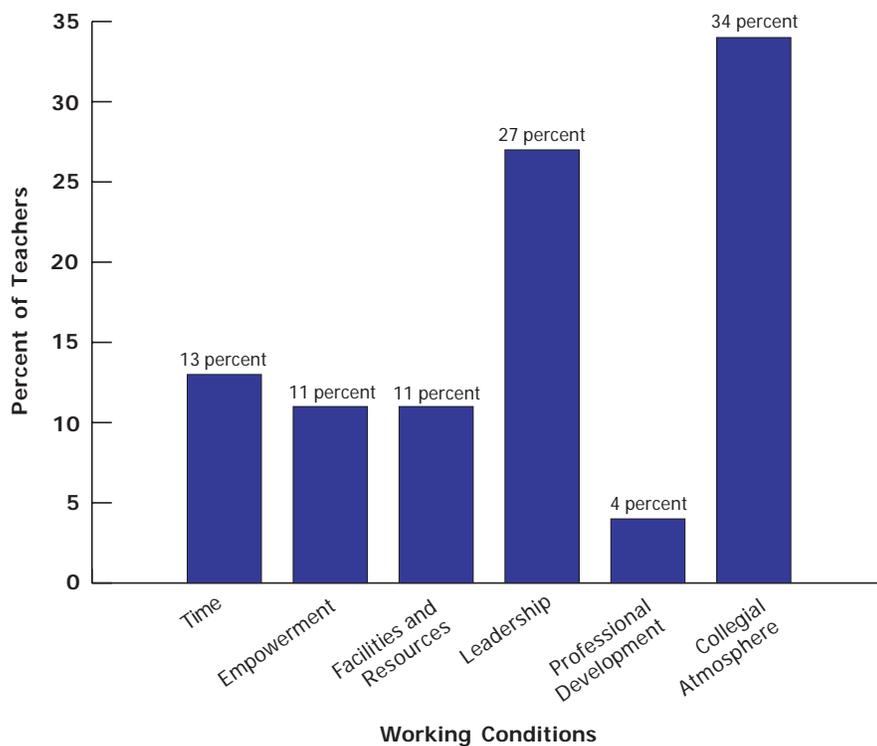
When considering revisions to the Teacher Working Conditions Survey, including more questions that address time, particularly how non-instructional time is utilized, may provide a better understanding of the connection between time and student learning.

The overall evidence from the analysis of the impact of teacher working conditions on student achievement provides compelling evidence to support Governor Easley's belief that "teacher working conditions are student learning conditions." Given that working conditions are significant predictors of student achievement, if policymakers educators and communities across North Carolina expect students to achieve at high levels, then teacher working conditions should be addressed and improved.

## Finding Two: Teacher Working Conditions Make a Difference to Teacher Retention

While teachers expressed that time and empowerment were central in their abilities to help students learn, a collegial atmosphere (34 percent) led by a principal with a strong instructional emphasis (27 percent) mattered most in teachers' decisions about whether or not to stay in the school in which they work (Figure 2).<sup>7</sup> Teachers value school settings where they are not isolated, working together with leadership that supports their efforts. As one accomplished teacher described during an online conversation about teacher working conditions, “My darkest hours of teaching were when I had no one else to talk to about student achievement and effective instruction. It was in those days I made covert plans to find somewhere else to teach.”

**Figure 2. Working Conditions Teachers Believe Are Most Important in Deciding Whether to Stay in a School**



There are significant connections between four out of the five working conditions and teacher retention (Table 3). As was the case with student achievement, the connection between time and teacher retention is tenuous. Correlations with both the one and three-year school-level retention rates with perceptions of time was negative—meaning that the better schools did on their average time rating by teachers, the lower their retention rate—but not at significant levels.

**Table 3. Correlations of Working Conditions with Teacher Retention**

	3-Year Average Retention	Retention for 2003-04
Time	-.020	-.017
Empowerment	.143**	.135**
Facilities and Resources	.147**	.126**
Leadership	.146**	.134**
Professional Development	.107**	.136**
% Eligible for Free and Reduced Lunch	-.307**	-.190**
% of Non-white Students	-.386**	-.272**
% of Fully Licensed Teachers	.438**	.436**
3-Year Retention	—	.737**

\*\*Statistically significant at the .01 level (2-tailed)

**Note:** The closer to one (or negative one), the greater the connection between the two items.

The connections with the other working conditions domains were statistically significant, albeit at lower levels than expected, especially when compared to other critical factors. Higher attrition rates occur in schools that serve poor and minority students and have a greater proportion of under-prepared teachers. The connections between attrition and teacher qualifications were strongest, greater than the poverty of children served and working conditions.

To better understand the relationship between teacher retention and working conditions, SECTQ conducted statistical modeling to isolate connections and determine whether a causal relationship exists. As was the case with the student achievement analysis, a few challenges of note had to be addressed.

- Many of the working conditions domains, due to their interconnectedness, are less likely to impact retention significantly. The correlations between working conditions areas were particularly strong between leadership and both empowerment (.803) and professional development (.823) (see Table 6). While this interconnectedness was accounted for in the analysis (multicollinearity), the close relationship between all five domains may have “lessened” the significance of each individual working conditions area.<sup>8</sup>
- While many important pieces of data were made available, even the collective impact of all factors considered can not tell the complete story of why teachers decide to leave schools. The model and factors considered only account for a small proportion of the variance in retention. So while the model can identify which factors are casually related, even these relationships exist outside the presence of many issues and concerns that contribute to teachers’ decisions to leave schools.<sup>9</sup>

Even with these difficulties, some working conditions proved to be significantly connected to teacher retention (Appendix B). Greater agreement (higher satisfaction levels) with the *empowerment* questions on the survey had a significant impact on teacher retention at the high school level. A significant connection between retention and *professional development*

was also documented.<sup>10</sup> *Professional development* was also found to exert a significant effect on teacher retention at the elementary level. School designation based on ABC test results, school size, and student poverty all contribute to teacher retention.

The two areas that teachers were least likely to identify as important to them in making decisions about whether to stay in a school turned out to be significant when modeling working conditions against actual retention rates.<sup>11</sup> Only four percent of teachers identified professional development as the working condition that would most guide their employment decision, yet it was found to be a statistically significant factor relative to teacher retention at both the elementary and high school levels.

### **Finding Three: Perceptions of Working Conditions are Reflective of Actual School Conditions**

Questions on the Teacher Working Conditions Survey are designed to capture educators' perceptions of working conditions in their school. Most questions assess how strongly educators agree with different statements that align with the state's working conditions standards (Appendix A).

These perceptions appear to be well grounded in the realities of schools. Teachers' views of working conditions are different, depending on what they actually experience in their school. So while this may be an "opinion survey," it can provide great insight into the actual design and conditions in a school. Consider the following:

- The relationship between teachers' perception of time and the amount of planning time provided are significantly related. Teachers receiving more planning time had more positive views of working conditions. Conversely, those who spent more time outside of school on school-related activities were more likely to feel negative about time.<sup>12</sup>
- Teachers who strongly disagreed that they have sufficient access to reliable communications technology or instructional supplies were much more likely to be negative overall about their facilities and resources.<sup>13</sup>
- Teachers agreeing strongly that they had adequate and appropriate time for professional development had much higher average ratings on the professional development domain.<sup>14</sup> Teachers that indicated they determine the content of their professional development had higher ratings in the areas of professional development, leadership and empowerment.<sup>15</sup>
- Teachers who agree that they have a role in deciding how the school budget is spent had higher ratings for both empowerment and leadership.<sup>16</sup>
- Teachers who voted for members of the School Improvement Team had better perceptions of working conditions, particularly empowerment and leadership. Teachers who played a role in the selection of members also indicated that the School Improvement Team was a more effective aspect of leadership in the school.<sup>17</sup>

## Finding Four: Leadership is Critical to Improving Working Conditions, but Principals and Teachers Perceive These Conditions Very Differently

As was the case in 2002, teachers and principals view the same working conditions with considerable differences. Responses on every survey question were significantly different between the two groups of educators.<sup>18</sup> Principals were more positive about working conditions in every area, particularly about the amount of time teachers have and how empowered they are to make decisions on education issues (Table 4).

**Table 4. Teacher Versus Principal Perception of Working Conditions Issues**

Working Condition Domain or Question	Teacher Average	Principal Average
Q. 3: Teachers are protected from duties that interfere with their essential role of educating students	2.72	3.80
Q. 10: The school leadership makes a sustained effort to address teacher concerns about the use of time in my school	3.18	4.38
Q. 40: Teachers are centrally involved in decision making about important education issues	3.28	4.38
Q. 57: Teachers in my school have time to plan with their colleagues during the school day	2.94	4.14
Q. 71: Overall, my school is a good place to work and learn	4.02	4.54
Time Domain Average	2.89	3.88
Empowerment Domain Average	3.12	4.08
Leadership Domain Average	3.73	4.48
Professional Development Domain Average	3.74	4.28
Facilities and Resources Domain Average	3.68	4.23

\*All responses statistically significantly different at the .01 level (two-tailed test). Responses on a one -to-five scale of agreement with one being strongly disagree and five being strongly agree

Some disparity in perceptions between school leaders and teachers on these measures might be expected, as would be the case with most business or other organizational surveys regarding working conditions. However, the consistency and the degree to which these discrepancies between school leaders and teachers occur across questions and domains on the survey is noteworthy. The data indicate that many teachers have critical concerns about their time and decision making authority that are often times unrecognized by school leaders. If many school and district leaders do not perceive the full extent of issues related to working conditions, it should not be surprising that there has been little impetus to improve them.

## Finding Five: Teachers, Regardless of their Background and Experience, View Working Conditions Similarly

Teacher responses to the Working Conditions Survey were remarkably similar. Race, gender, highest degree earned, means of preparation (lateral entry versus traditional preparation) and

National Board Certification status do not appear to affect teacher perceptions of any working conditions domain.

Teacher background and experience also did not affect overall satisfaction with their school or the aspects of working conditions they believed to be most important in retaining teachers and improving student learning. Although overall there appears to be minimal discrepancies in how different teachers perceive working conditions, when asked about the realities of professional development a number of important findings surfaced:

- Less experienced teachers were more likely to receive at least ten hours of professional development in working with special education students (21.3 percent versus teachers with 21+ years at 14.6 percent), methods of teaching (43.5 percent versus 34.8 percent) and classroom management techniques (35.5 percent versus 17.0 percent). However, they were less likely to receive professional development on “closing the achievement gap” (16.8 percent versus 26.5 percent) and on reading strategies (43.4 percent versus 60.0 percent).
- Lateral entry teachers were more likely to prioritize content area professional development and methods of teaching than traditionally prepared teachers who emphasize reading strategies (22.0 percent versus 9.5 percent). Lateral entry teachers were far more likely to have received at least ten hours of professional development in classroom management techniques (37.9 percent versus 19.4 percent) and less likely to receive preparation in reading strategies (41.5 percent versus 57.1 percent for traditionally prepared teachers).<sup>19</sup>

While background does not appear to influence teacher’s perceptions of their working conditions, the school level in which they teach does (Table 5). Elementary teachers had more positive perceptions of working conditions than secondary teachers, particularly those at the high school level. Professional development was the domain where the greatest disparity between elementary and secondary teachers existed. As will be explored in greater depth later in the report, high school teachers not only had more negative perceptions about professional development than other teachers, but also indicated that their professional development was less likely to produce gains in student learning.

**Table 5. Working Conditions Averages by School Level**

	Elementary	Middle School	High School
Time	2.96	3.14	2.92
Empowerment	3.35	3.14	3.01
Facilities and Resources	3.84	3.75	3.50
Leadership	3.92	3.77	3.67
Professional Development	3.92	3.76	3.55

## **Finding Six: Many Aspects of Working Conditions have “Ripple Effects”**

All working conditions are positively and significantly correlated with each other (Table 6). Consequently, schools have faculties that are likely to be positive or negative overall about their working conditions.

**Table 6. Correlations of Teacher Working Condition Domains**

	Time	Empowerment	Facilities and Resources	Leadership	Professional Development
Time	---	.458	.480	.542	.586
Empowerment	.458	---	.536	.803	.721
Facilities and Resources	.480	.536	---	.634	.634
Leadership	.542	.803	.634	---	.823
Professional Development	.586	.721	.634	.823	---

**Note:** All correlations significant at the  $p < .01$  level (2-tailed)

- Leadership and professional development are strongly correlated. Many of the critical issues within the professional development area involve principals acting as strong instructional leaders, prioritizing, providing resources and allowing teachers to direct their own learning.
- Leadership and empowerment are also closely related. Teachers who felt empowered to make decisions about their classroom and school work have positive views of their school leader.

This interconnectedness could pose challenges to schools looking to focus on particular working conditions areas in hopes of making improvements. However, the correlations also indicate that improving one area could have a “ripple” effect on others and cause teacher’s overall satisfaction with their school climate to increase and thereby improve student learning.

# IN-DEPTH ANALYSIS OF TEACHER WORKING CONDITIONS DOMAINS

*“If I had more impact I would feel more invested! That is the erosion that occurs over 38 years of teaching. That is what eats away at some of the classroom fulfillment . . . I must convince each new principal that I am a professional because so many decisions are ‘out of the hands of teachers’—even though I am a department chair. Think how the beginning teacher must feel! I try not to allow this to erode my pride and feeling of professionalism.”*

—Member of the Teacher Leaders Network

While the Teacher Working Conditions Survey results point to areas in need of improvement—particularly in providing teachers sufficient time to teach, collaborate and plan with colleagues—the findings are generally positive and show improvement in many areas since the survey was first conducted in 2002.<sup>1</sup> In this section of the report, each domain is examined in-depth with a brief explanation of its importance, a summary of findings and broad recommendations.

## **Time: Ensuring Teachers Can Work Collaboratively and Focus on Teaching All Students**

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 changing curriculum 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 extra-curricular 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.

In many European and Asian countries, teachers spend no more than half their time in classroom instruction. They spend 17-20 hours per week teaching and devote the remainder of their 40-45 hour work weeks to planning, collaboration, meeting with students, and observation of other teachers.<sup>2</sup> Because American teachers are so busy teaching, they often lack the opportunity to step back and evaluate the effectiveness of their instruction.

### ***Trends Regarding Time from the 2004 North Carolina Teacher Working Condition Survey***

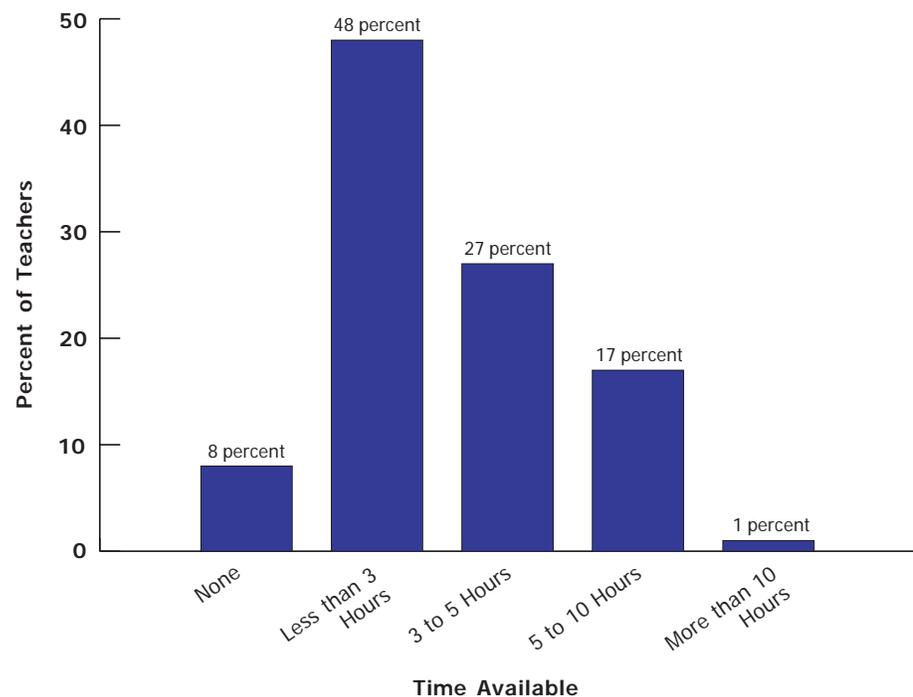
Time was the domain with the lowest overall satisfaction on the Teacher Working Conditions Survey, receiving an average rating of 2.95, almost a full point (on a one to five scale) less than professional development, leadership and facilities and resources. Teachers' negative perceptions appear to be driven not only by the inability of schools to provide opportunities for teachers to plan and meet during the day, but also by the amount of time being spent after school on school-related activities. Consider the following trends:

#### **1. Teachers are not satisfied with the amount of time they receive.**

Teachers do not believe they have sufficient time. Only about half (51 percent) agree that they have adequate time for collaboration with colleagues—although that is up from 38.3 percent in 2002—and less than half (46 percent) believe that new teachers are provided enough time to work with a mentor within and outside of the classroom.

Limited time is provided to teachers to plan or work collaboratively (Figure 3). More than half of North Carolina teachers report receiving fewer than three hours of planning time per week (56 percent). More than three-quarters (82 percent) receive five hours or fewer. Because of the important relationship between teacher learning and student learning, the National Staff Development Council recommends that teachers spend at least one-quarter of their work time on collaboration and professional development that is embedded throughout the school day. Only one percent of North Carolina educators indicate that they receive this recommended amount of time for collaboration and development.

**Figure 3. Time Available for Planning Within the Normal Instructional Day**



**2. It appears that teachers attribute the time dilemma to teaching load and non-instructional duties.**

Despite efforts in the state to decrease class size, less than half of teachers believe that they can meet the educational needs of all students with their current class sizes (49 percent) and student loads (42 percent). Even at the elementary level, which class size reduction efforts have targeted, time is listed as the area of greatest concern. It is the only working conditions domain in which elementary teachers share the same level of frustration as middle school and high school teachers (see Table 5).

Teachers also expressed frustration with non-instructional duties that often make it more difficult to focus on student learning. A majority of teachers (54 percent) do not believe that they are protected from duties that interfere with their role of educating students; almost one-quarter (22 percent) strongly disagree that they are protected.

**3. Teachers are solving the time dilemma by working on school-related activities outside of the school day.**

Given the lack of time available to teachers during the school day to plan, assess student performance and collaborate, many are working nights and weekends (Table 7). More than one-quarter of North Carolina teachers spend more than 10 hours per week (27 percent) on school-related activities such as grading, parent conferences and meetings. Many work with students outside of school hours as well, coaching, tutoring, running before and after school programs, etc. More than one-third of teachers are working directly with students for at least three hours per week outside of the school day.

**Table 7. Time Spent Outside of the Regular School Day on School-Related Activities**

	<b>School-Related Activities Involving Student Interaction (tutor, coaching, clubs, etc.)</b>	<b>Other School-Related Activities (grading, conference, meetings, etc.)</b>
None	28%	1%
Less than 3 Hours	38%	15%
3 to 5 Hours	16%	26%
5 to 10 Hours	9%	31%
More than 10 Hours	9%	27%

**Issues to Consider**

Time remains the greatest challenge to improving working conditions according to teachers. The following broad issues are suggested for consideration by educators and policymakers. These recommendations are discussed in much greater detail, along with online resources that provide examples of schools using these strategies successfully, checklists and other action tools, and research demonstrating their effectiveness, at [www.teacherworkingconditions.org](http://www.teacherworkingconditions.org).

- Structure the school day to allow sufficient time for direct planning, productive collaboration with colleagues, and overlapping time for mentors and mentees, all embedded within the school day. Consider scheduling reforms which decrease the number of classes taught and preparation necessary for teachers, involve school and district administrators in teaching, and maximize the use of aides, permanent substitutes to assist teachers in order to free up time for collaboration and individualized instruction;
- Protect teachers from non-essential duties that interfere with teaching by creating a system that allows community members, administrators, or other qualified adults to assume some of the extra-curricular duties traditionally performed by teachers;
- Structure the school/district calendar to allow for meaningful professional development activities embedded throughout the school year; and,
- Create school processes and infrastructure that are responsive to teacher concerns about time and impediments that limit available time to meet the educational needs of all students (such as class size and student loads).

### **Empowerment: Ensuring Those Who Are Closest to Students Are Involved in Making Decisions that Affect Them**

Teaching has historically been a profession which granted practitioners some degree of autonomy in their classrooms, but larger institutional decisions affecting their work were still controlled by administrators and policymakers. Everything from hiring, budgeting, scheduling, textbook and technology selections to professional development and curriculum is often in the hands of others. As noted by Richard Ingersoll, in his 2003 book *Who Controls Teachers' Work?: Power and Accountability in America's Schools*, "Those who are entrusted with the training of this next generation are not entrusted with much control over many of the key decisions in their work." He notes that in schools where teachers are more empowered, there is "less conflict between staff and students and less teacher turnover."

The importance of teacher empowerment in key education areas cannot be underestimated. When teachers believe that their knowledge of teaching and learning (and the very students they teach) is considered a valuable factor in decision-making, they become connected to their schools and districts in powerful ways. This connection can help improve the retention of those teachers in their classrooms and, ultimately, the success of the students they teach.

#### ***Trends Regarding Empowerment from the 2004 North Carolina Teacher Working Conditions Survey***

Empowerment, which is significantly connected to retention at the high school level and indicated by teachers as essential for maximizing student learning, received a 3.17 average in the state. This average is higher than time, but lower than the other three working conditions areas. Trends in this area include:

1. **While a majority of teachers (58 percent) agree that they are centrally involved in decision making, very few teachers strongly agree with the statement, indicating a limit to the sphere of influence that teachers have in decision making.**

Although a majority of teachers agreed that they were centrally involved in decision making about important education issues, few indicated strong agreement (only 19 percent). While two-thirds feel they are recognized as educational experts, few are able to exert that expertise in two critical areas: hiring and budgeting. Only one-third indicate having a role in the hiring of teachers, and 40 percent play a role in deciding how the school budget is spent. Teachers were more likely to exert control on decisions such as determining the content of professional development (53 percent) and establishing and implementing policies for student discipline (59 percent).

2. **The areas where teachers indicated broad agreement in the empowerment section of the survey have more to do with leadership than empowering teachers.**

Many positive aspects of school working conditions were found in the empowerment section of the survey:

- More than three-quarters of teachers agree that they are trusted to make sound professional decisions about instruction and student progress (78 percent);
- Teachers say that they work together to improve teaching and learning (81 percent);
- Two-thirds agree that there is an atmosphere of trust and mutual respect in their school (66 percent);
- Teachers indicate that they feel comfortable raising issues and concerns that are important to them (62 percent);
- More than three-quarters believe that there are opportunities for parents to express their concerns and propose school improvement solutions (78 percent); and
- More than four-fifths (83 percent) believe that an effort is made in their school to empower teachers, parents and other members of the community.

Interestingly, the statistical analysis of the Teacher Working Conditions Survey showed that the responses to these questions were more likely to explain the notion of “leadership” than empowerment. As previously discussed, leadership and empowerment are intertwined, but it appears that positive aspects of empowerment have as much, if not more, to do with principals and school leadership than teachers themselves.

3. **When teachers agreed with statements indicating empowerment, they did not strongly agree.**

While one-third indicated that they have a role in hiring new teachers, only 11 percent “strongly” agreed. Forty-percent indicated having a role in deciding how the school budget was spent, but only 10 percent of teachers felt strongly about their role. Only 18 percent indicated

strong agreement that they assist in determining the content of in-service professional development programs as opposed to 38 percent saying that they “somewhat agree.”

### *Issues to Consider*

Teachers should be provided opportunities that allow a wide range of involvement in decision making. Involvement should be meaningful while still respecting the need for teachers to expend the greatest amount of time and energy in the classroom with their students, and allowing decisions to be made at the level which might be required by statute. These factors should be recognized, but should not be used as excuses to marginalize the role of teachers in consequential decisions affecting their school. Specifically, educators, policymakers and the school community should consider:

- Providing teachers access to resources (finances, time, opportunity, etc.) to identify and solve problems related to their classroom in order to ensure they can help all students learn.
- Creating opportunities—both formal and informal—for teachers to influence, design, create, and implement school and district policies and procedures. Consider that only 59 percent of teachers indicated that they vote for members of the School Improvement Team.
- Encouraging the inclusion of teachers in community, school, district, and state level discussions related to the welfare and ability of all students to academically achieve at the highest levels.

## **Facilities and Resources: Ensuring Teachers Have the Resources to Help All Children Learn**

A growing body of research confirms that the quality of facilities contributes directly to teacher turnover rates and student performance. A study by the Carnegie Foundation for the Advancement of Teaching (1998) found that student attitudes about education directly reflect their learning environment, and other studies have shown that clean air, good light, and a quiet, comfortable, and safe learning environment are essential for academic achievement.<sup>3</sup>

Despite increased expenditures for school facilities, many education and community leaders, along with policymakers, remain unprepared for and unresponsive to the facility and resource needs of schools. One reason is that, although more than 80 percent of principals surveyed in New Jersey considered themselves well trained for providing academic leadership and ensuring teacher quality, fewer than half thought they were well prepared for facilities management.<sup>4</sup>

In 2001, a survey of public school facilities identified \$6.2 billion in current and projected facility needs throughout the state. To assist districts, the North Carolina Department of Public Instruction developed their public schools facilities guidelines to provide school systems and designers with useful and reliable design information to use as a basis for new schools, additions and renovations.<sup>5</sup> On the national level, schools on the cutting edge of the reform movement in facilities and resource management are creating smaller learning communities; delivering instruction through innovative and emerging technologies; reconsidering and redesigning the traditional school spaces to create smarter designs of teacher working and student learning spaces; and integrating community strengths and resources in partnerships with a wide array of public, civic, and private organizations.

### ***Trends Regarding Facilities and Resources from the 2004 North Carolina Teacher Working Conditions Survey***

Overall, teachers were positive about the facilities and resources in North Carolina, with a domain average of 3.71. Given the linkages to student learning documented in the previous section, these generally positive views are important. One-fifth of teachers indicated that facilities and resources was the most important working condition to them in promoting student learning (ranking it third of five). Principals, however, ranked facilities and resources as the least important aspect of working conditions necessary to improve achievement.

#### **1. Teachers are consistently positive about the facilities and resources available to them.**

Most teachers were positive about facilities and resources. Consider the following:

- Almost three-quarters of teachers (73 percent) say they have convenient access to reliable communication technology, office equipment such as copy machines (71 percent), and instructional supplies (69 percent);
- About two-thirds of North Carolina educators have access to a broad range of educational support personnel (tutors, social workers, nurses, etc.) (62 percent), and current instructional technology for classrooms (64 percent);
- Three-quarters agree that they work in a school environment that is clean and well maintained; and
- Eighty-four percent agree that their school environment is safe.

#### **2. Teachers are more likely to strongly agree that their resources are sufficient, and less likely to strongly disagree than in other working conditions areas.**

More teachers “strongly” agreed than “somewhat” agreed with many of the facilities questions related to access to equipment and communications technology, and especially safety. More than 40 percent of teachers felt strongly that their school environment is clean and half of teachers strongly agreed that their school is safe. Alternatively, only four percent felt strongly that their school environment is not safe and only six percent strongly disagreed that the school overall had adequate materials and facilities to enable good teaching.

#### **3. Teachers in districts participating in the Disadvantaged Students Supplemental Funding (DSSF) pilot program are more likely to have negative perceptions about many facilities and resources issues than the rest of the state.**

In considering teachers’ perceptions of facilities and resources, practitioners in schools within districts selected for the DSSF program were less likely to report having access to important resources, relative to the state average.

- While 73 percent of teachers across the state either agree or strongly agree that they have convenient access to reliable communication technology, including phones, faxes and email, only 63 percent of teachers in DSSF districts agree or strongly agree with the same statement.

- While 62 percent of teachers across the state either agree or strongly agree that they have access to a broad range of instructional support (tutors, mental health professionals, nurses, social workers, etc.) only 51 percent of teachers in DSSF districts agree or strongly agree with the same statement.

### ***Issues to Consider***

As a working condition that is more easily identified and under direct control of the school district and state, the physical building of a school and its related resources should be considered and treated as much more than an institutional backdrop. Facilities and resources provide an opportunity to significantly improve teacher working conditions, student learning conditions and student achievement. Consider the following issues for addressing facilities and resources:

- Provide clean, safe, and well-maintained school environments that promote learning;
- Provide more convenient and consistent access to instructional and communication technology;
- Ensure adequate professional space for teachers and paraprofessionals in school facilities; and
- Ensure sufficient access to support personnel (tutors, family specialists, mental health professionals, nurses, psychologists and social workers).

## **Leadership: Ensuring Schools Have Strong Leaders Who Support Teaching and Learning**

School improvement is not possible without skilled, knowledgeable leadership that is responsive to the needs of all teachers and students. A recent report by the Wallace Foundation revealed that leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school, and leadership effects are usually largest where and when they are needed most. School leaders must combine appropriate pressures and supports as they develop an environment that encourages professional learning communities and continuous school improvement.

The Wallace report indicated that three sets of practices constitute the basic core of successful leadership: setting directions, developing people, and redesigning the organization.

National studies analyzing teacher survey results, like the School and Staffing Survey from the National Center for Education Statistics, have found that teachers leaving because of job dissatisfaction frequently indicate that the lack of administrative support and low salaries as the top reasons for their departure. Teachers from high minority, high poverty schools were even more likely to report that the lack of administrative support was the primary reason for leaving. School leadership has been documented to have an impact on the overall school culture and teacher job satisfaction. Consequently, principal development will prove essential in reducing the high teacher turnover rates and creating professional learning communities within schools.

## ***Trends Regarding Leadership on the Teacher Working Conditions Survey***

The analysis of working conditions impact on student achievement demonstrates the considerable significance of school leadership. Teachers' own perceptions about the role of leadership in their decisions about where to work makes the need for strong school leadership even more clear. Fortunately, teachers rate leadership highest of the five working conditions (3.78). About three-quarters (73 percent) of teachers agree that overall their principal is an effective leader (47 percent indicate that they strongly agree). Almost four-fifths (79 percent) of teachers believe that their principal supports them when they need it.

### **1. Leadership is rated highly, particularly on issues related to communicating policies, expectations and standards for evaluation and instruction.**

School leadership is given high marks by teachers in several areas, especially as it relates to communication. Consider:

- Two-thirds (68 percent) believe administrators are available to give priority to supporting teachers and three-quarters (72 percent) believe that teachers make efforts to address teacher concerns (35 percent strongly agree);
- Three-quarters (72 percent) of teachers agree that faculty and staff have a shared vision, that policies are communicated effectively (77 percent) as are expectations (82 percent) and standards for delivering instruction (86 percent); and
- Most teachers are positive about evaluation and the feedback they receive. Seventy-nine percent agree that they are recognized for professional accomplishments and 77 percent say they receive helpful feedback for improving teaching and learning.

Despite these positive findings, according to teachers, school leadership is less successful addressing issues related to time (Table 8). A majority of teachers disagree that leadership reduces routine administrative duties, and only half (53 percent) agree that concerns about time are addressed.

**Table 8. School Leadership and Efforts to Improve Working Conditions**

<b>School leadership makes a sustained effort to:</b>	<b>Percent of Teachers Indicating Agreement</b>
Reduce routine administrative duties or paperwork that interferes with the job of teaching.	43%
Address teacher concerns about time	53%
Address teacher concerns about leadership	54%
Address teachers about facilities and resources	72%
Provide quality professional development in my school	74%

### **2. Leadership is at the heart of teacher working conditions.**

Leadership is highly correlated with all working conditions, particularly professional development and empowerment. A substantial number of questions, while designed to examine issues in

other working conditions domains, were more closely related to leadership. Twenty-seven questions on the Teacher Working Conditions Survey pertained to leadership (compared to the second most prominent at eleven in the area of professional development). Further, a statistically significant and strong connection was documented between teachers' overall perceptions of working conditions in their school and their views on leadership.<sup>6</sup>

### *Issues to Consider*

The word leadership can no longer evoke images of the lone principal who commands authority over all decisions made in a school. It is time to rethink what school leadership means. These issues focus on the need for principals to continue their own learning and professional development, which in turn requires restructuring the traditional principal workload to provide time for collaboration with other school leaders. Strong communication between teachers and principals must occur so that teachers are simultaneously led in the right direction and supported in their efforts to improve student learning. Educators, policymakers and community members should consider:

- Creating a system where principals have meaningful professional development that enhances their knowledge and skills as effective instructional leaders serving students and teachers;
- Reexamining and modifying the work of principals, allowing them sufficient time for effective and ongoing communication with teachers. Communication should include a shared vision for success, clear performance expectations of the school community and regular updates on emerging policies and initiatives shaping education;
- Ensuring the formal evaluation system is based on student learning and professional development that enhances teachers' knowledge and skills. An informal process of continued feedback and recognition for teacher performance should accompany the formal evaluation process;
- Ensuring that principals and other school personnel are effectively supporting teachers and responding to primary concerns that prohibit teachers from improving student learning. Teacher support should be accessible, proactive, and collaborative in nature; and
- Providing teachers opportunities not only to advance in teaching, but also to explore and pursue the principalship.

## **Professional Development: Ensuring Teachers Can Continually Enhance Their Knowledge and Skills**

Not all professional development is created equal. Research indicates that high quality professional development is essential for high quality teaching. 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 and become active agents in their own professional growth.

The most effective professional development focuses on the specific content students will learn and the specific difficulties students encounter in learning the content. Therefore, professional

development should not focus on generic teaching behaviors, but on the analysis of curriculum and student responses to it. Offering “in-service” for teachers on the new student standards is insufficient to the task at hand. Teachers need vehicles for analysis, criticism, and communication of ideas and practices.

### ***Trends Regarding Professional Development in the 2004 North Carolina Teacher Working Conditions Survey***

Professional development in North Carolina has received a significant amount of attention in recent years. At least six reports have analyzed and recommended reforms to North Carolina’s professional development system to improve its efficiency and effectiveness.<sup>7</sup> Teachers added their voice to discussions of reform during negotiations last year on the “calendar bill,” when many claimed that the state’s twenty (now fifteen) professional development days were not well utilized.

The Teacher Working Conditions Survey provides additional information about teachers’ perceptions of the professional development they receive. These perceptions are particularly important given the strong connections found between professional development and student achievement as well as teacher retention. The average rating for professional development was 3.77, virtually identical to the highest rated working conditions domain—leadership (3.78). Three trends were identified from analysis of the survey data.

#### **1. Teachers are generally satisfied with the professional development they receive.**

Across school types and within most professional development areas, teachers believe that their learning opportunities helped them implement new teaching strategies and ultimately helped their students learn (Table 9). Although high school teachers were less satisfied with their professional development overall, between half and three-quarters of teachers felt it was helpful.

- Content driven professional development was particularly well received, but less than 40 percent of elementary school teachers received at least ten hours over the past two years and only half of high school teachers (51.9 percent) had a significant amount of content based professional development.
- While professional development on reading strategies was prominent and, by teacher’s perception, effective, only one-fifth of high school teachers had literacy training and fewer teachers found it effective.
- Professional development on working with Limited English Proficient students and closing the achievement gap was identified by fewer teachers as providing new instructional strategies and improving student learning.

**Table 9. Professional Development Received and Effectiveness by School Type**

Professional Development Area	Elementary School			Middle School			High School		
	Had 10+ Hours	% with Successful Inst Strtg	% said raise Std Achieve	Had 10+ Hours	% with Successful Inst Strtg	% said raise Std Achieve	Had 10+ Hours	% with Successful Inst Strtg	% said raise Std Achieve
Special Ed—Students with Disabilities	16.6%	76.6%	71.9%	19.2%	77.7%	72.8%	19.1%	69.8%	66.6%
Working with Limited English Proficient	9.0%	41.6%	38.6%	8.7%	49.5%	46.8%	7.1%	47.8%	44.2%
Closing the Achievement Gap	25.6%	57.0%	54.1%	26.4%	55.0%	50.9%	25.1%	54.5%	51.1%
Content Area	39.2%	78.1%	73.6%	49.7%	81.1%	75.1%	51.9%	81.9%	77.3%
Methods of Teaching	34.5%	73.4%	69.3%	35.9%	72.2%	66.1%	40.1%	77.0%	73.1%
Classroom Management	19.0%	68.2%	61.6%	23.1%	70.1%	62.1%	25.4%	67.6%	57.7%
Reading Strategies	64.7%	86.0%	83.9%	53.3%	75.2%	70.7%	20.8%	64.7%	58.3%

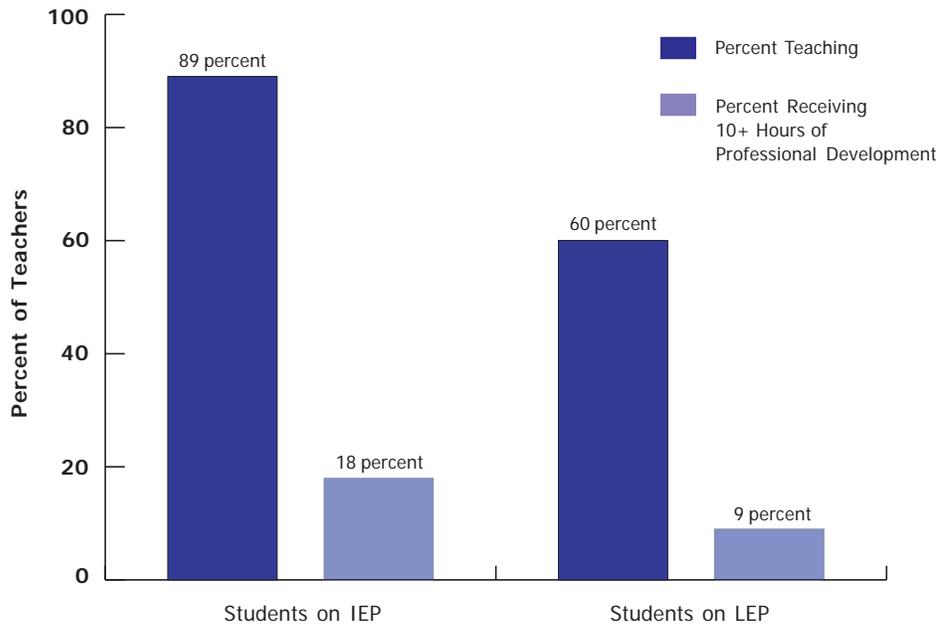
## 2. Teachers need more professional development, particularly in helping diverse learners meet high standards.

Few teachers had a significant amount of professional development in the areas identified on the survey. Half of high school teachers have not had a significant amount of content driven professional development and one-third of elementary teachers have not received at least ten hours in the past two years.

If all students are to make Adequate Yearly Progress and achieve at high levels, teachers—particularly those prepared prior to the exponential growth of and mainstreaming of students with special needs—will need preparation on how to work with diverse learners, particularly those on Individualized Education Plans (IEP) and those who are Limited English Proficient (LEP).

Figure 4 shows the gaps in those who work with special needs students and those who have received significant professional development. While 89 percent of North Carolina teachers work with at least one special education student, only 18 percent have had significant professional development in working with students with IEPs. Less experienced teachers (those with one to three years experience) were more likely to have at least ten hours (21.3 percent) than those with significant experience (14.6 percent for those with 21 years experience or more). Sixty percent of educators in the state work with Limited English Proficient students, but only nine percent have received a significant amount of additional training.

**Figure 4. North Carolina Teachers Working With and Receiving Professional Development to Work with Diverse Learners**



**3. Teachers often do not play a role in selecting the professional development opportunities available to them.**

Sixty-three percent of teachers agreed that adequate and appropriate time is provided for professional development, and 69 percent agreed that enhancing teacher knowledge and skills received priority as a way to improve student achievement. More than two-thirds (69 percent) believe that sufficient resources and support are available to allow teachers to take advantage of professional development.

While resources appear sufficient for most teachers, control over professional development content is not. Only half (53 percent) of teachers agree that they “assist” in determining the content of in-service professional development. Teachers were also much more likely to “somewhat agree.” Only 18 percent of teachers strongly agree that they help choose professional development program offerings. Teachers who did play a role in determining content had higher overall ratings of professional development (as well as empowerment and leadership).

**Issues to Consider**

Above all, professional development should provide educators the knowledge and skills to work with all students and should also enhance their capacity for analyzing and interpreting data. The following issues to consider are meant to encourage a data-driven process in deciding what professional development opportunities to provide, implementing the system, and evaluating its impact on student learning. In order to provide high quality professional development to all teachers, stakeholders should consider:

- Ensuring professional development provides teachers with the knowledge and skills necessary to work with all learners;

- Providing extensive resources—including time for professional development design, implementation and evaluation—and conduct an assessment of current spending;
- Providing opportunities for teachers to assume responsibility for their own professional development through formal and informal means;
- Developing partnerships that provide expertise and resources to support student success and teachers' learning;
- Planning professional development, based on state standards, that is aligned with school and district goals and promotes evaluation and follow-up; and
- Enhancing the capacity for teachers, principals and district administrators to analyze and interpret data to ensure that professional development opportunities are based on the needs of students and teachers.

# CONCLUSION

*While I'd love to be paid more, no amount of money could make me teach if these conditions [effective school leaders, professional flexibility and a culture of collaboration] are not present in the schools where I work.*

—Member of the Teacher Leaders Network

The considerable benefit of Governor Easley's Teacher Working Conditions Initiative is that the state has started to shine a bright light on an issue that has been largely ignored or overlooked in schools across the state and around the nation. The good news is that the light has shown some positive elements of teacher working conditions—80 percent of teachers agreed that overall their school is a good place to work and learn and 48 percent of teachers strongly agree with this statement.

The analysis of survey results also indicate that the state, districts, schools and communities can and should do considerably more to improve teacher working conditions. This report indicates that successful undertakings to improve teacher working conditions could significantly improve student achievement and help to stem teacher turnover. Given the chronic teacher retention problems facing North Carolina, especially in hard-to-staff districts and schools, and the overwhelming interest in holding students to higher achievement standards, a systemic and sustained effort to improve teacher working conditions is a necessary investment for education stakeholders.

Broad recommendations are offered to state, district and school level practitioners and policymakers. Ultimately, improvement must be data-driven and unique to each school and district. Therefore, the recommendations focus on increasing access to working conditions data and providing assistance and resources as all school look to improve student learning conditions by investing in schools that are organized for success.

## State Level Actions

1. *Provide state funding for the design, dissemination, and analysis of the Working Conditions Survey every other year.*

North Carolina educators and students have been fortunate that Governor Easley has committed to and continues to support the Working Conditions Survey. Given the significant connections between working conditions and student achievement, more needs to be done to ensure that the survey will continue over time to provide schools and districts with the customized data they need to help ensure a positive school climate for teachers and students. The North

Carolina General Assembly and/or the State Board of Education should fund and administer the survey and require a report of its findings. These findings should be included in broader reporting on the success of recruitment and retention efforts undertaken by the state. Further analysis should be conducted on the survey results to provide information on other issues be examined by the state such as the quality of professional development as well as recruitment and retention in hard-to-staff schools.

Greater efforts must be made to improve the response rate to the survey. Currently, only half of North Carolina schools can benefit from the unique data provided and many districts did not have a sufficient response rate to generate a report. Efforts to improve the methods of disseminating, publicizing, and conducting the survey should be considered.

- 2. Provide assistance to school and district communities to ensure that they know about access, understand and use the data to improve teacher working conditions.*

Governor Easley's Teacher Working Conditions Initiative will only be successful if communities use the data from the surveys to improve working conditions. They will need help. Currently several efforts are underway from multiple organizations: The Southeast Center for Teaching Quality has designed an online toolkit for communities to generate working conditions reform strategies and is providing direct assistance to several districts. Teacher Academy is assisting the 16 DSSF pilot districts to provide professional development to improve working conditions; BellSouth is providing funding for the North Carolina Business Committee for Education to work in several communities on engaging business and the community in working conditions reform; NCNetwork is including working conditions data analysis as part of its data blueprint for the school and district improvement planning process with its members; and groups such as the Principals Executive Program and the North Carolina Center for the Advancement of Teaching are integrating working conditions analysis and planning into their professional development activities.

Yet, more needs to be done to ensure that these efforts are coordinated and sufficient to reach out to all schools and districts that need assistance. Teachers have taken the time to give their perspective. The state needs to help schools and districts use that perspective for discussion and action.

- 3. Document and disseminate successful strategies to reform working conditions and ensure resources are made available for school and districts to improve.*

The North Carolina Professional Teaching Standards Commission is documenting strategies in schools with positive working conditions. Case studies that delve deeply into the catalysts, barriers and costs of pursuing these strategies should occur, as was the case on a limited basis after the 2002 analysis. State funds—through a venture capital or reserve fund—should be made available to help schools and districts undertake data driven working conditions reform efforts informed by the best practices documented throughout the state. These funds should be competitive, prioritized toward hard-to-staff and low performing schools and include evidence of ongoing monitoring and success.

- 4. Invest in what matters most for improving teacher working conditions—high quality leaders who can empower teachers to be included in decision making about instruction and create learning communities that help all students succeed.*

The findings from the study demonstrate that leadership is at the core of improving working conditions in schools. Professional development and empowerment, the two other areas of greatest significance in improving results, are dependent on high quality principals who engage teachers in decision making. The state should examine the preparation, induction and continuous support of school leaders and ensure that all principals understand the important role of teacher working conditions and have the knowledge and skills to make their schools places where all teachers want to work and students can learn.

- 5. Consider reforms that directly address teachers' greatest concerns about their working conditions.*

Teachers are the most negative about the time available to them and their ability to participate in decisions that directly effect teaching and learning. State investments in: class size reduction efforts, reductions in teaching load (particularly for new teachers), time for planning and to work collaboratively, and high quality professional development may help improve teachers' perceptions of their school environment, and ultimately student success.

## **District Level Actions**

- 1. Acknowledge that teacher working conditions matter and commit the time and resources necessary to providing teachers with the environment, resources and support they need to help all students learn.*

Districts create many of the policies that contribute to school working conditions, particularly in the area of facilities and resources and professional development. Districts should take the time to analyze working conditions results at the district level and within individual schools to assess the effectiveness of current policies and programs. Identifying policies that act as catalysts and barriers to improved working conditions based on the survey results will help districts improve.

- 2. Provide specific opportunities and professional development to ensure the teacher working conditions data is disseminated, understood and ultimately used to inform and drive school reforms.*

Districts should seek opportunities to engage their schools in conversations about working conditions. For example, the Iredell-Statesville school district convened each of their school Teachers' of the Year to look at Working Conditions Survey results and create goals that will be included in their district improvement plan. The first step is to ensure that teachers in the district respond to the survey and be encouraged to do so honestly. Iredell-Statesville was able to host a convening of teachers because the district had a sufficient response rate in 32 out of its 34 schools and more than 60 percent across the district. Using existing school and district improvement planning and integrating the analysis of working conditions data along with other data points about students and faculty will help to ensure that working conditions are prioritized as a school reform strategy.

- 3. Consider specific district policy changes and resource allocations that can help individual schools implement strategies that respond to working condition areas of concern.*

Each district should use its own data to assess which working condition is the greatest priority and to gauge which strategies may ultimately be most effective in creating an improved school climate. Examples of successful strategies, research and action tools for improvement can be found at [www.teacherworkingconditions.org](http://www.teacherworkingconditions.org).

## **School Level Actions**

- 1. Analyze Teacher Working Conditions Survey results and have faculty conversations about their implications.*

The power to improve working conditions is ultimately in the hands of the individual school, its faculty, and its parents and surrounding community. Results should be used to take a hard, objective look at school climate and design. Unfortunately this is not possible in half of North Carolina's schools. Those without data should not only focus on the opportunity to take the survey again in Spring of 2006, but either print, conduct and tabulate results independently or use the questions to discuss these important issues.

- 2. Consider specific school policy changes and resource allocations that can help individual schools begin implementing strategies that respond to working condition areas of concern*

Each school should use its own data to assess which working condition is the greatest priority and to gauge which strategies may ultimately be most effective in creating an improved school climate. Examples of successful strategies, research and action tools for improvement can be found at [www.teacherworkingconditions.org](http://www.teacherworkingconditions.org). Many of these strategies not only involve school faculty, but the broader community and volunteers. Conversations and policy reforms should engage those audiences and draw upon their talents and resources.

- 3. Include strategies to address teacher working conditions into existing School Improvement Plans.*

The types of reforms that need to occur to improve working conditions are not short, quick fixes. Finding time, empowering teachers and building a learning community with trust and mutual respect requires a long-term commitment to creating a new school culture. Prioritizing strategies, identifying short and long term goals, consistently evaluating progress and discussing results all must occur.

Findings from this report support the importance of identifying and discussing teacher working conditions. Significant and compelling connections between working conditions and student achievement have been documented. Ensuring a qualified teacher for every student is not enough to close the achievement gap. Teachers must have the resources and supports they need to serve all students well, and without comprehensive and sustained efforts to improve teacher working conditions much of the state's notable school reform efforts could go unfulfilled.

# **APPENDIX A. STANDARDS FOR WORKING CONDITIONS IN NORTH CAROLINA SCHOOLS**

## **Use of Time**

In schools that are dedicated to recruiting, nurturing and retaining teachers, the following working conditions are evident:

- There is scheduled time in the day for teachers to focus on development of successful curriculum, classroom management, strategies, and techniques to individualize instruction for student success.
- Teachers have student loads that allow them to meet the educational needs of all students.
- Teachers are not assigned duties that interfere with their primary job of educating students.
- Planning time is provided for all teachers K-12.
- New teachers are provided effective mentors. There is time for the new teachers and the mentor to work together during the day, both within and outside the classroom.
- Standards and expectations for teachers are organized, simplified and streamlined to allow teachers to focus on developing skills that are most important for successful instruction.
- Teachers have time to collaborate with highly skilled, dedicated colleagues.

## **Facilities and Resources**

In schools where teachers are productive, creative, and satisfied, the following working conditions are in place:

- There is space for each teacher to work with students and with colleagues; there is also space for the teachers to work quietly and individually.
- Teachers have necessary office and instructional supplies and access to funds for purchasing supplies which allows them to involve students in meaningful work.

- Teachers have access to current technology that allows them to prepare students to be successful.
- Teachers have assistance for the clerical aspects of their jobs.
- The school environment is safe. The health of teachers, staff members and students is a top priority. The school is a secure place for the entire learning community.
- Teachers have help from educational support personnel such as tutors, family specialists, psychologists, nurses, counselors, administrators, social workers, mental health professionals, and others. This assistance allows teachers to meet all the needs of their students.
- Schools have community and business partnerships that support the learning process.
- Teacher salaries and supplements are competitive with equivalent professions.

## Leadership

Schools where teachers are enthusiastic and effective show evidence of the following:

- The principal is a strong and supportive leader with a clear vision of the central mission of the school. The principal utilizes the leadership potential of the teachers.
- All stakeholders (including teachers) participate in the decision-making process.
- There is a high level of leadership and support from the school board, central office, and parent, as well as from government officials, such as county commissioners, state legislator, the Superintendent of Public Instruction, the State Board of Education, and the Department of Public Instruction.
- Teachers are the recognized leaders of their classrooms and are supported in their classroom-based decisions and initiatives.
- School leaders at all levels shield educators from disruptive distractions in order to ensure that teachers can focus on what is best for their students and for learning.

## Empowerment

In schools where teachers are effective and where turnover is low, there is evidence of the following:

- There are many avenues available for educators to express their concerns and propose solutions.
- Reasoned educational risk-taking is encouraged and supported.
- Teachers are recognized as educational experts and are trusted to make sound professional decisions.

- Within the educational community there is an atmosphere of mutual respect, where each professional is empowered to do his/her work.

## **Professional Development**

In schools where learning is valued, teachers are encouraged and supported in their efforts to develop their skills and knowledge:

- Sufficient resources are available to allow teachers to take advantage of important professional development opportunities.
- Professional growth of teachers is valued as the basis for improving student achievement.
- A variety of types of learning opportunities are recognized as valuable, including study groups and teacher research.
- The design and choice of professional development activities are research-based.
- Professional development is based on individual, school, and district goals.

# APPENDIX B. STATISTICAL MODELS

## DOCUMENTING THE CONNECTION BETWEEN TEACHER WORKING CONDITIONS, STUDENT ACHIEVEMENT AND TEACHER RETENTION

AYP Status  
(Logistic Regression)

Variable Included	All* (n=703)	Elem. (n=469)	Middle (n=138)	High (n=96)
	<i>Odds Ratios (of making AYP)</i>			
<b>Leadership</b>			6.651	
<b>Empowerment</b>				
<b>Time</b>	.371	4.614		
<b>Professional Development</b>	3.967			
<b>Facilities and Resources</b>	2.775			
<b>School Designation</b>		3.864	NI	
<b>ABC</b>	4.834			
<b>Size1</b>	.502 (medium)	.103 (medium)		
<b>Size2</b>	.234 (large)	.025 (large)	.266 (large)	
<b>% Students receiving Free and Reduced Lunches</b>		.957		.942
<b>3-YearTeacher Retention Rate</b>				

NI = Not included due to high collinearity at least one other variable

All data reported significant at  $p < .05$  (two-tailed)

\* School type was tested and found to be significant for the model "ALL"; odds ratios for Middle = .057 and for High = .139. Comparison.

### ABC Status—Making or Exceeding Growth Expectations (Logistic Regression)

	All (n=703)	Elem. (n=469)	Middle (n=138)	High (n=96)
<b>Variable Included</b>	<i>Odds Ratios (of making 1) high growth versus growth or no growth, and 2) high growth and growth versus no growth)</i>			
<b>Leadership</b>				
<b>Empowerment</b>				
<b>Time</b>	.642			
<b>Professional Development</b>			12.379	
<b>Facilities and Resources</b>				
<b>School Designation</b>	NI	NI	NI	NI
<b>AYP</b>	4.158	3.286		
<b>Size1</b>				
<b>Size2</b>				
<b>% Students receiving Free and Reduced Lunches</b>			.903	
<b>3-Year Teacher Retention Rate</b>	1.043	1.037		

NI = Not included due to high collinearity at least one other variable  
All reported data significant at p < .10

### School Designation (Logistic Regression)

	All (n=703)	Elem. (n=469)	Middle (n=138)	High (n=96)
<b>Variable Included</b>	<i>Odds Ratios (of 80% at or above grade level)</i>			
<b>Leadership</b>				48.051
<b>Empowerment</b>				
<b>Time</b>	.240			
<b>Professional Development</b>	10.181			
<b>Facilities and Resources</b>	2.970			
<b>AYP</b>				
<b>ABC</b>	NI	NI	NI	NI
<b>Size1</b>				
<b>Size2</b>				
<b>% Students receiving Free and Reduced Lunches</b>	.977	.955	.882	.895
<b>3-Year Teacher Retention Rate</b>	1.052	1.042		1.134

NI = Not included due to high collinearity at least one other variable  
All reported data significant at p < .05 (two-tailed)

### 3-Year Teacher Retention (Stepwise Linear Regression)

	All* (n=703)	Elem. (n=469)	Middle (n=138)	High (n=96)
<i>% Variance explained</i>	<b>16.0%</b>	<b>16.9%</b>	<b>25.5%</b>	<b>19.5%</b>
Variable Included	Beta Values			
<b>Leadership</b>	NI	NI	NI	NI
<b>Empowerment</b>				.302
<b>Time</b>				
<b>Prof. Dev.</b>		.128**		-.496
<b>Facilities and Resources</b>				
<b>School Designation</b>	.126	.175	NI	.233
<b>AYP</b>				
<b>ABC</b>				
<b>Size1</b>		.106 (medium)		
<b>Size2</b>	.088 (large)	.141 (large)		
<b>% Students FRL</b>	-.263	-.203	-.502	

NI = Not included due to high collinearity with at least one other variable

Reported findings significant at the  $p < .05$  level (two-tailed)

\* School type was assessed for the model "All" and found not to be significant

\*\*  $p < .10$  (two-tailed)

# NOTES

## Executive Summary

1. School, district and state reports on working conditions can be found at [www.learnnc.org/gov/twc.nsf](http://www.learnnc.org/gov/twc.nsf).

## Introduction

1. Data for teachers prepared in North Carolina in 1997-98 through traditional and lateral entry programs after three years (2000-01 school year) and five years (2003-03 school year). Data from NC Public Instruction, analysis by the Southeast Center for Teaching Quality. Published by the James B. Hunt, Jr. Institute for Educational Leadership and Policy. "Teacher Retention" prepared for an disseminated to a briefing of the North Carolina General Assembly, December 1, 2004. Online at [www.teachingquality.org/resources/html/HuntRecruitRetain.html](http://www.teachingquality.org/resources/html/HuntRecruitRetain.html).

2. National Center for Education Statistics. *Teacher Attrition and Mobility: Results for the Teacher Follow-up Survey, 2000-01*. Washington, D.C.: NCES 2004-301, August 2004.

3. Hilary Loeb, Ana Elfers, Michael Knapp and Marge Plecki with Beth Boatright. "Preparation and Support for Teaching: Working Conditions of Teachers," *Working Paper #2*. Seattle, Wash.: Center for the Study of Teaching Policy at the University of Washington, May 2004.

4. For example, see Rosenholtz, S. J. (1989). *Teachers' workplace: The social organization of schools*. New York, N.Y.: Longman; Talbert, J., McLaughlin, M., & Rowan, B. (1993). "Understanding context effects on secondary school teaching." *Teachers College Record*, 95(1), 45-68, and Bryk, A.S. and Schneider, B. (2002). *Trust in Schools: A Core Resource for Improvement*. New York. Russell Sage Foundation.

5. Richard M. Ingersoll. *Who Controls Teachers' Work?: Power and Accountability in America's Schools*. Cambridge, Mass.: Harvard University Press, 2003.

6. *Governor Mike Easley's Teacher Working Conditions Initiative: Preliminary Report of Findings from a Statewide Survey of Educators*. March 2003. Report Available at [www.governor.state.nc.us/Office/Education/\\_pdf/TWCPreliminaryReport.pdf](http://www.governor.state.nc.us/Office/Education/_pdf/TWCPreliminaryReport.pdf)

7. For a copy of the survey go to [www.learnnc.org/gov/twc.nsf](http://www.learnnc.org/gov/twc.nsf).

8. Domain averages were created by running a factor analysis on the survey responses. Questions with a .3 factor load were included in the domain. A listing of questions included in the domain average is available online at [www.teacherworkingconditions.org/dataanalysis/unpacking\\_domain\\_results.html](http://www.teacherworkingconditions.org/dataanalysis/unpacking_domain_results.html).

9. Those models are described in greater detail throughout the report. Some variables that had significant correlations with the dependent variable were ultimately dropped from the models as they did not appear to enhance the explanatory power of the models (variance explained remained virtually the same). As working conditions were the variables of greatest concern to this analysis, only data that enhanced the quality of the model were included beyond the five working conditions domains.

## **What Has Been Discovered About Teacher Working Conditions**

1. Logistic regressions were conducted as the student achievement data was dichotomous (i.e. met or did not meet). Logistic regressions produced logit coefficients converted to odds ratios. AYP was measured by whether or not the school had met all of the criteria necessary under NCLB for the 2003-04 school year). School growth was run as a three-level response outcome variable (exceeded, met, or failed to meet state growth expectations). Dichotomous variables were created for school designation. The probability of receiving a rating of “School of Distinction,” “Excellence” or an “Honor School of Excellence” versus all other designations was used as the dependent variable in the models. Those ratings translate into at least 80 percent of students performing at or above grade level on North Carolina’s ABC End-of-Grade and End-of-Course tests. For information on the formula used to create student achievement growth expectations and school designation, see [www.ncreportcards.org/src/](http://www.ncreportcards.org/src/). Models were run working conditions survey domain averages at the school level for elementary schools (n=505), middle schools (n=158), and high schools (n=109) with greater than a 40 percent survey response rate.

2. Throughout the report, the terms “probability” or “times more likely to achieve” are used for clarity to the reader. Findings from binomial regressions are actually odds probability ratios.

3. School level retention data, provided by the Department of Public Instruction (DPI), was used for the 2003-2004 school year. School size was created from Average Daily Membership reports provided by DPI for each school type. Size ranges were created in an effort to ensure a sufficient number of schools were categorized in each size range. For elementary schools: small = less than 450, mid-size = 450 – 605, and large = greater than 605; Middle schools: small = less than 633, mid-size = 633-826, and large = greater than 826; High school: small = less than 959, mid-size = 959 – 1,383, and large = greater than 1,383.

4. North Carolina students in grades 3-8 must complete annual ABCs End-of-Grade tests in reading and mathematics. Students enrolled in the following courses must complete End-of-Course tests: English I, Algebra I, Algebra II, Geometry, Biology, Chemistry, Physical Science, Physics, ELPS, and US History. Results from tests taken by students in this school are reported below. Growth on the ABC is based on whether a school met predetermined goals. For more information on how growth targets are set, see [www.ncreportcards.org/src/Datasources21.pdf](http://www.ncreportcards.org/src/Datasources21.pdf).

5. See previous notes for an explanation of the domains using factor analysis. Questions that comprise the time domain are Q.1, 2, 3, 4, 5 and 57. Q.7, 8a and 8b that address actual time spent were not included in the domain average due to low factor loads, driven in large part to differences in wording and metrics used in question design.

6. Correlation between Q.8b on time spent outside of the school day on school related activities without student contact and the time domain average. Correlation was  $-.36$ , significant at the  $.01$  level (two-tailed test).

7. Collegial atmosphere was included as an option only on Q.69. While many questions in the survey address questions about collegiality, no section on the survey identifies it as an issue, nor did the factor analysis identify it as a major area of emphasis.

8. Initially, empowerment, leadership and professional development were all significant predictors of retention when entered singularly, but when all five domains were included only time remained significant.

9. The variance explained in the model is low, ranging from 16 percent in the all schools category to 25.5 percent at the middle school. When adding other variables, higher r-square values were attained, but additional variables had to be discarded due to multicollinearity. In the end, a model with lower variance explained was used in order to include as many working conditions variables as possible.

10. As can be seen in Appendix B, the connection with professional development at the high school level is negative. Given the correlations and other findings, as well as the positive result found at the elementary level, this finding is likely due to the unique nature and small sample (96) of high schools.

11. Leadership was not included in the model given the high colinearity with empowerment and professional development. Collegial atmosphere was also not included in the model as discussed in note 14. Given the research demonstrating the importance of leadership in retention, as well as the response to Q.69 by North Carolina teachers arguing that leadership is of crucial importance in their decisions about whether to stay in a school, further research on this topic should be conducted.

12. Correlation between the time domain school average for those with at least a 40 percent survey response rate ( $N=1,031$ ) and Q.7 on amount of planning time was  $.350$ , significant at the  $.01$  level (two-tailed test). The correlation between time spent outside of the school day on school-related activities (Q.8b) was  $-.356$ , significant at the  $.01$  level (two-tailed test).

13. Q.13 on communication: strongly agree mean = 4.83 vs. strongly disagree mean = 2.44. Q.14 on instructional materials: strongly agree mean = 4.43 vs. strongly disagree mean = 2.46. Differences between the means for both questions are significant at the  $.01$  level.

14. Professional development domain average of 3.29 versus 4.41 based on the response to survey Q.6, "Adequate and appropriate time is provided for professional development." Differences are statistically significant at the  $.01$  level (two-tailed test).

15. For those strongly disagreeing on Q.50 vs. those that strongly agree. Domain averages for strongly disagree are leadership = 2.71, professional development = 2.88, and empowerment = 1.81; for strongly agree: leadership = 4.48, professional development = 4.42, and empowerment = 4.41.

16. Response to Q.51, for those agreeing (responded with 4 or 5) had domain averages of leadership = 4.37 and empowerment = 4.29 vs. disagreeing averages of leadership = 3.29 and empowerment = 2.31. Differences in domain averages for leadership and empowerment are significantly different at the .01 level (two-tailed test).

17. Mean differences on all working conditions domain means between those who indicated that they elected members of the team (59 percent of teachers) and those who did not were statistically significant at the .05 level (two-tailed test). For empowerment, the difference was 3.36 versus 2.89 and on leadership 3.93 versus 3.54. The mean difference for Q.22 on the effectiveness of the School Improvement Teams was 3.70 vs. 3.05.

18. P=.05 level (two-tailed test).

19. This reading strategies disparity is likely due to the preponderance of lateral entry teachers working at the high school level and in special education. Lateral entry teachers were more likely to have received at least 10 hours of professional development in special education (27.7 percent versus 15.2 percent for traditional).

## **In-Depth Analysis of Teacher Working Conditions Domains**

1. Comparisons are possible on a limited number of questions as the wording and number of questions changed in many cases between 2002 and 2004. Further, in 2002, questions were presented on a one to six likert scale, but on a one to five scale in 2004. To create agree and disagree statements for comparative purposes, SECTQ assumed a response of 4, 5 or 6 was “agree” for 2002 and 4 or 5 for 2004, and 1, 2 or 3 was “disagree” for 2002 and 1 or 2 for 2004.

2. Organisation for Economic Cooperation and Development (OECD). *Education at a Glance: OECD Indicators*. Paris, France: OECD, 2003. Available online at <http://www1.oecd.org/publications/e-book/9603061E.PDF>.

3. For example, see Cash 1993, Earthman and Lemasters 1996, Lemasters 1997, Lackney 1999, Schneider 2002.

4. Schneider, Mark. *The Educational Adequacy of New Jersey Public School Facilities: Results for a Survey of Principals*. Stony Brook, N.Y.: State University of New York at Stony Brook, May 10, 2004. Available online at [http://edlawcenter.org/ELCPublic/elcnews\\_040510\\_PrincipalsSurvey.pdf](http://edlawcenter.org/ELCPublic/elcnews_040510_PrincipalsSurvey.pdf).

5. The guidelines, issued in 2003, are available at [www.schoolclearinghouse.org/pubs/FacilitiesGuidelines2003.pdf](http://www.schoolclearinghouse.org/pubs/FacilitiesGuidelines2003.pdf).

6. Correlation between the leadership domain average and Q.71 was .773, significant at the .01 level (two-tailed).

7. Most recently, Center for Child and Family Policy at Duke University. *Professional Development Initiative: Proposal for Action*. Durham, N.C.: Duke University, November 2004. For references to and websites of other studies see the PDI report pp. 9-10.