North Carolina Public School Teachers’ Perceptions of Value-Added Measures

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Abstract

North Carolina incorporated student growth data as the sixth standard of statewide teacher evaluations in 2012-2013. Do teachers feel they have been listened to in the creation and implementation of Standard 6? I administered an anonymous survey to NC public school teachers on NC’s Standard 6 that received more than 600 responses. The survey indicates that teachers think that they understand the value-added measures (VAM) component of the evaluations better than they actually do. Furthermore, teachers are very skeptical of Standard 6 and are unsure it will be a legitimate source of information on what to improve. Finally, teachers do not think other teachers were a part of the process to incorporate Standard 6 or that their own voices were heard once the new evaluation system was implemented. I argue that communication and trust are the root of the above issues. Clearer training on how Standard 6 works would address many of the issues linked to misunderstanding. Furthermore, involving key policymakers and stakeholders such as the North Carolina Department of Public Instruction (NCDPI) and the North Carolina Association of Educators (NCAE) to obtain teacher feedback would increase trust and legitimacy of administrators and policymakers.
Introduction and Background

Teachers have a major influence on a child’s education, and are arguably the most important factor a school can control. The United States public education system is often said to be broken, in part because teacher evaluations do not always provide meaningful feedback and differentiate educators. Teacher evaluations do not necessarily provide enough feedback for teachers to know on what they can improve (New Teacher Project 2009). In 2009, U.S. President Barack Obama initiated a contest between states called Race to the Top (RttT), providing substantial funding to the winners and pushing for certain reforms according to the federal agenda (National Council on Teacher Quality 2011). This federal initiative incentivized states to comply with the federal agenda to increase their chances of winning funding. The states and districts that won federal funding have since begun to change many policies according to the framework they laid out in their RttT proposals. Teacher evaluations are among the most contentious of these reform efforts. Race to the Top specified certain criteria that would be used to judge the states’ applications, including incorporating student test scores in teacher evaluations, though there is much debate as to the validity of those measures (Rothstein et al. 2010). These criteria created the incentive for states to link student test scores to educator evaluations so that they would have a better chance of winning RttT funding. In 2010, North Carolina won Race to the Top and received a grant of $400 million (Williams et al. 2010). North Carolina began to change its teacher evaluation policies before receiving the RttT grant, and has since incorporated RttT requirements such as using student test scores in teacher evaluations.
Teacher evaluations in North Carolina

North Carolina has changed its teacher evaluations several times in the last decade, and Race to the Top has prompted many of the most recent changes. The Excellent Schools Act of 1997 required the North Carolina Evaluation System and Process to create a framework of 21st Century Learning and align with the NC Teaching Standard (NC General Statutes 115C-333 and 335 1997). Before 1997, the Teacher Performance Appraisal Instrument (TPAI) was the main way teachers were evaluated. According to the TPAI, teachers were only evaluated according to information that was observed in a classroom (Williams et al. 2010). In the late 1990s, North Carolina legislators decided that teachers were not getting enough meaningful and personal feedback from the TPAI. The Excellent Schools Act therefore asked the North Carolina Professional Teaching Standards Commission members—16 practicing educators in NC schools—to determine what NC teachers need to know and be able to do in 21st-century schools.

The teacher evaluation system that came out of the Excellent Schools Act of 1997 is called the North Carolina Educator Evaluation System (NCEES). The NCEES relies on multiple data sources, not just classroom observations. These data sources can include lessons plans, class rules, samples of student work, and student achievement data and discipline (North Carolina Teacher Evaluation Process 2009). Teachers are evaluated according to 6 different areas, called standards, in the NCEES:

1. Standard I: Teachers Demonstrate Leadership;
2. Standard II: Teachers Establish a Respectful Environment for a Diverse Population of Students;
3. Standard III: Teachers Know the Content They Teach;
4. Standard IV: Teachers Facilitate Learning for Their Students;
5. Standard V: Teachers Reflect on Their Practice;
6. Standard VI: Teachers Contribute to the Academic Success of Students.

The NC Professional Teaching Standards Commission established the first five standards in the North Carolina Teaching Standard and the 21st Century Learning initiatives. The stated intent of the NCEES is threefold for teachers. First, the NCEES is to help teachers develop and improve their effectiveness and instructional skills. Second, it should serve as a tool to develop coaching and mentoring programs for teachers. Third, the NCEES should measure individual teacher’s performance (North Carolina Professional Teaching Standards 2006). Between 2010 and 2014, North Carolina is to sponsor an Educator Effectiveness Workshop to develop models for a uniform statewide approach of teacher evaluations that was rolled out in select LEAs in the 2011-2012 school year. The workshop continued beyond the 2011-2012 school year to incorporate teacher feedback and deal with any issues with the new evaluation system. The workshop described in the RttT application would be comprised of classroom teachers, school and district administrators, university faculty and other researchers with technical expertise, and representatives from organizations representing stakeholders such as the NC Association of Educators and the NC Association of School Administrators. The intent of the Educator Effectiveness Workshop is to allow for teachers to have a voice in the implementation of the NCEES and to deal with any issues that may arise as they work with the new evaluation policies (North Carolina RttT Proposal 2010, 143).

The final standard of the NCEES came about with pressure to win Race to the Top funding due to NC education budget cuts. There were four main categories in the RttT application, one of which was “Building data systems that measure student growth and success,
and inform teachers and principals about how they can improve instruction” (Race to the Top Fund 2009). In 2010 North Carolina won Race to the Top and received a grant of $400 million, which then prompted NC to add student growth measures to the NCEES (North Carolina RttT Proposal 2010, 132). This value-added measure is now a part of the teacher evaluations as Standard 6, the sixth component of the NCEES (North Carolina Teacher Evaluation Process 2009). Standard 6 is intended to measure how much a student has grown academically in a given year and relate this growth to a teacher’s effectiveness.

**Standard 6**

Standard 6 is the accumulation of a student’s projected test scores according to the student’s previous test scores and actual test scores, which therefore indicate how much value a given teacher adds to a student’s education. Standard 6 is measured according pre- and post-tests scores, the Education Value-Added Assessment System (EVAAS) growth model, state End-of-Grade assessments, and Measures of Student Learning common exams (Ready: Measuring Growth for Educator Effectiveness). The pre- and post-test score growth model calculates the difference in scores on a given test over a period of time to associate the gains or losses to the teacher’s effectiveness. EVAAS uses each student’s last test scores to project the growth a student should make over a period of time and associate the actual growth to the teacher’s effectiveness. Therefore, Standard 6 measures the amount of growth a student has made over the course of a grade or subject, not how much a teacher is responsible for the student’s growth nor how much growth a student was supposed to make according to state standards. Table 1 shows what type of data is used by English Language Arts, Mathematics, Science, and Social Studies teachers.
Table 1: Data used for Standard 6 ratings in K-12

<table>
<thead>
<tr>
<th>Grade</th>
<th>Data Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-3</td>
<td>Pre- and post-test growth model of a new state literacy assessment program</td>
</tr>
<tr>
<td>3-4 Social Studies or 4th grade Science</td>
<td>EVAAS growth model, state End-of-Grade assessments, Measures of Student Learning</td>
</tr>
<tr>
<td>4-5</td>
<td>EVAAS growth model, state End-of-Grade assessments</td>
</tr>
<tr>
<td>6-12</td>
<td>EVAAS growth model, state End-of-Grade assessments, End-of-Course assessment, and Measures of Student Learning</td>
</tr>
<tr>
<td>K-12 World Languages, Arts, or local elective courses</td>
<td>Did not receive Standard 6 ratings in 2012-2013</td>
</tr>
</tbody>
</table>

An evaluator formally considers a teacher’s student growth once there is enough data to indicate potential trends, which would be after three consecutive years of test scores in the same subject area. The NCEES uses the three consecutive years of test scores to attempt to control for factors outside teachers’ influence that affect grades, such as socioeconomic status. In the 2012-2013 school year, teachers obtained Standard 6 ratings based solely on the student growth values for their individual students. If an educator did not have growth data for his or her individual students, then his or her Standard 6 ratings were based on the entire school’s data. Therefore, those teachers would not have the school’s data count towards the three-year rolling average for the determination of the individual teacher’s effectiveness status. A teacher would be considered accomplished if his or her students exceed expected growth, proficient if students meet expected growth, and least proficient if students do not meet expected growth (North Carolina RttT Proposal 2010, 138).

In the NCEES, all six standards are weighed equally, contrary to many other states’ evaluation systems. North Carolina’s application for RttT specified that NC believed all standards are equally essential. Consequently, teachers are to attend to all aspects of their roles...
equally. Failure to meet a certain level of performance in any standard would result in more coaching, support, and professional development that could eventually lead to dismissal if there were no improvement (North Carolina RttT Proposal 2010, 137). The student growth component of the NCEES counts for one sixth of the teacher evaluation, which is much lower than the student growth component in most other states. The student growth component of teacher evaluations is weighed as between 35% and 50% of teacher evaluations in Arizona, Colorado, Delaware, DC, Florida, Idaho, Louisiana, Maryland, Minnesota, Nevada, New York, Ohio, Oklahoma, and Tennessee (National Council on Teacher Quality 2011).

North Carolina used student growth measures in teacher evaluations before RttT, though they were not a formal part of the process. In the 1990s, the ABCs program provided NC state-level data on individual student test scores to parents and teachers (North Carolina RttT Proposal 2010, 128). North Carolina public school teachers have not resisted many of the major policy changes over the last decade, including teacher evaluation changes. However, there has been opposition from NC teachers that student growth measures are not the most effective way to evaluate teachers (Gilbert 2013).

**Research Questions**

In this light, I am interested in studying North Carolina public school teachers’ views and understanding of Standard 6, the student growth component of the North Carolina Educator Evaluation System. Teachers are the main stakeholders in the implementation of Standard 6, so their compliance and understanding of the legislation is essential. If teachers do not think a policy and policymakers are legitimate, then they are less likely to use the findings of a policy to improve their teaching techniques (Spillane *et al.* 2002). Given the importance of educators to
use the data from their Standard 6 ratings to improve their teaching, I examined how NC teachers perceive, understand, and give feedback on Standard 6. First I discuss the literature on the importance of teacher evaluations, the reliability of value-added measures, and the importance of teachers’ input and perception with policy changes. Then I explore the findings of a survey that measured North Carolina public school teachers’ understanding and perception of Standard 6 as well as their perception of teacher feedback on Standard 6. This work will address the following question:

To what extent do North Carolina public school teachers feel that they have had a voice in the creation and implementation of Standard 6 in their teacher evaluations?

The above question gives rise to three sub questions:

1. How well do North Carolina public school teachers understand Standard 6?
2. What are teachers’ perceptions of Standard 6’s potential effects on students and personnel?
3. Do educators think that fellow teachers represented them in the creation and implementation of Standard 6?
Conceptual framework and Literature review

The importance and shortcomings of teacher evaluations

A wide range of studies agrees that teachers are important contributors to a student’s performance. According to Wright, Horn, and Sanders, teacher effectiveness is the strongest school factor that influences a student’s achievement. A student’s class size, school system, and heterogeneity do not affect a student’s performance as much as the student’s teacher (Wright et al. 1997). Similarly, Aaronson, Barrow, and Sander find that teachers have an impact on students. The researchers held a student’s initial ability constant, which is measured by test scores, and saw that a teacher does affect the end-of-year test score achievement. In fact, the variation in teacher effect is statistically significant, in that a teacher who is rated as average compared to a teacher who is a standard deviation above average will see an increase in test scores relative to the average teacher (Aaronson et al., 2007). These findings support the position that the quality of a teacher’s instruction is a significant factor for a student’s academic growth.

A substantial amount of literature has been written on what teacher evaluations currently entail as well as on their shortcomings. Think tanks and experts agree that current evaluations consist mainly of principal in-class observations, but often principals are not required to provide detailed written explanations of a teacher’s ratings. This lack of information does not allow teachers to greatly improve their teaching, since they are not always aware of what they can improve (Thompson 2011). The current evaluation system and student data in particular are not always reflective of what is being taught or learned (Thompson 2011). The New Teacher Project’s 2009 “The Widget Effect” maintains that in districts that rate their teachers through the binary choices of “satisfactory” vs. “unsatisfactory” or a broader range of rating options, more
than 94% of the teachers receive the top two ratings, while only 1% is rated as “unsatisfactory” (New Teacher Project 2009). Though it is widely recognized in the teaching profession that teachers are least effective in their first few years, 66% of novice teachers receive the top ratings. Novice teachers have ample opportunity to improve and grow, but immediately receiving high ratings sets low expectations. Finally, poor performance is not addressed through this system. Despite the uniformly high ratings, administrators and teachers recognize that there is ineffective teaching in their schools. In fact, 81% of administrators and 57% of teachers claim that there is at least one tenured teacher with a poor teaching performance in their schools (New Teacher Project 2009). Furthermore, 43% of teachers assert that there is at least one tenured teacher who should be dismissed because of inadequate performance (New Teacher Project 2009).

In recent years there has been a push to include more student growth data in teacher evaluations. A 2010 Brookings report states that teacher evaluation systems that include value-added measures tend to allow for more reliable personnel decisions about teachers than those that do not (Glazerman et al. 2010). The report concludes that value-added does have an important role to play in teacher evaluations to ensure that the most effective teachers teach students. Nevertheless, given the reliability and errors in value-added measures, this methodology should not be the sole basis of high stake personnel decisions (Glazerman et al. 2010). The Brookings report argues that value-added is one important tool among many for understanding who the most effective teachers are in our system, so it should not be overlooked (Glazerman et al. 2010). Effective teachers are a major factor to receiving a good education, but the current system seems to fall short in giving teachers substantial feedback, though this could be improved by adding value-added measures to teacher evaluations.
Reliability of value-added measures

Value-added measures have been a source of tension among scholars and policy makers because their reliability and validity is often called into question. Some experts argue that value-added measures are an effective way to evaluate and differentiate educators. Students taught by teachers with higher value-added measures are more likely to obtain higher scores (Chetty et al. 2011). In 2013, the Gates Foundation published a report on the Measures of Effective Teaching (MET) project to test methods for identifying effective teachers. The study created an algorithm using student surveys, classroom observations, and each teacher’s records on the students’ score gains on state tests (Kane et al. 2013). This algorithm was meant to systematize measurement of effective teaching by being able to predict a teacher’s effect on a student’s test gains or losses. The study found that the predictions created using 2009-2010 data correlated with the observed student achievement at the end of 2010-2011. It seemed that, on average, students whose teachers were relatively more effective had higher achievement gains than students in other classes studying the same subject (Kane et al. 2013). The National Bureau of Economic Research released a 2010 report detailing that student test scores in conjunction with observations are an effective way to evaluate teachers (Kane et al. 2010). VAM may be an effective evaluation method, but there is debate as to its validity.

Measuring a teacher’s impact on student growth involves substantial technical difficulty given reliability issues. Douglas Harris, associate professor at Tulane University, argues that teacher value-added is a problematic way to measure a teacher’s performance. Harris points to statistical validity as a major issue with value-added, though he acknowledges that these measures are positively related to other widely accepted evaluation procedures (Harris 2009). Furthermore, value-added measures are not always stable across teachers and time. Judgments
of teacher effectiveness can vary substantially across statistical models, subjects taught and years of teaching for a given educator (Newton 2010; Lockwood 2007). Moreover, the value-added model is meant to control student characteristics, but, in practice, these characteristics can dramatically impact teacher rankings (Newton 2010). A 2010 U.S. Department of Education report stated that random error in value-added measures erroneously identified 1 out of 4 teachers for special treatment though they were average (Schochet et al. 2010). Statistical issues may decrease VAM’s potential to evaluate educators appropriately.

It is difficult to measure a teacher’s influence through value-added measures given all the other influences on a child’s test scores. The Economic Policy Institute’s 2010 report, *Problems with the use of student test scores to evaluate teachers,* detailed the problematic consequences of using test scores to evaluate teachers (Rothstein et al. 2010). VAM cannot fully control for school conditions, family resources, and other factors that influence student test scores (Rothstein et al. 2010, Darling-Hammond et al. 2011). Furthermore, the value-added model is unstable across the various statistical models, years, and even different classes in which an educator teaches. In fact, among teachers ranked in the 20% of effectiveness in the first year of a study, only one third remained in that top group the following year, while another third was in the bottom 40% (Rothstein et al. 2010). The Board on Testing and Assessment of the National Research Council of the National Academy of Sciences stated (Haertel 2009),

“…VAM estimates of teacher effectiveness should not be used to make operational decisions because such estimates are far too unstable to be considered fair or reliable.”

The lack of stability in ratings of educator effectiveness would be problematic given that VAM is a major part of new teacher evaluation procedures, sometimes having as much as 50% of the weight on teacher evaluation and compensation decisions.
In 2011, Breedlove argued that there are significant positive differences in teacher perceptions of the new teacher evaluation process in North Carolina when teachers have had more experience with the process. Thus, as teachers have had more exposure to and training with the new components of teacher evaluations in North Carolina, they have become more comfortable with the changes and tend to view them more positively (Breedlove 2011). Similarly, Gonzales postulates that Tennessee teachers did not have clear negative or positive perceptions of value-added measures in 2006 because they were not sure what VAM would entail (Gonzales 2006). Tennessee had no continuous professional development to train teachers on how to change their instructional strategies given their VAM evaluation results (Gonzales 2006). These findings suggest that long-term training is important to help teachers implement new teaching strategies according to their evaluations results.
Methodology

North Carolina public school teachers may understand and perceive Standard 6 differently across districts and teacher demographics. I have used an anonymous survey to study public school teachers’ perceptions and understanding of Standard 6. This analysis allowed me to relate teachers’ understanding and perception of Standard 6 and their perspective on teacher representation and personal involvement in the creation and implementation of Standard 6.

Participants: Public School Teachers

Working with the North Carolina Association of Educators (NCAE), I sent my survey out to all of the association’s teacher members. The NCAE has members from each school district in North Carolina, which helped me access a good representation of North Carolina schoolteachers for K-12 as a whole. I focused on teachers in public schools and public magnet schools, not public charter schools or other specialized schools. Though other types of public schools receive funding from the state of North Carolina, only traditional public schools and public magnet schools are obliged to incorporate student growth in their teacher evaluations. Public charter schools are not required to use student growth in teacher evaluations. Thus, I focused on public school teachers to understand how effectively Standard 6 has been explained and implemented. For this reason, I also reached out to all of North Carolina’s district superintendents individually to increase my response rate and the diversity of my sample.

Collaborating with NCAE and NC’s district superintendents to send out my survey allowed me to access a diverse sample of teachers, which is helpful to represent North Carolina teachers as a whole. Working across districts helped me capture differences between the districts, such as income level and student demographics, that may affect how student growth
measures are perceived. NCAE members teach many different subjects and have a broad variety of experience. Some members are newly hired while others have taught for decades, which permitted a diverse perspective on the changes to NC teacher evaluations.

Research design

My survey was designed to gather both quantitative and qualitative information. My intent was to gain a better understanding of how teachers perceive Standard 6 as well as how much they feel they have been heard in its creation and implementation. I gauged teachers’ opinions of Standard 6 through several questions asking teachers to rate how much they agreed or disagreed with statements on Standard 6. Furthermore, I provided teachers with some leeway to fill in their own thoughts or opinions on specific aspects of Standard 6 so as to allow for a clearer perspective on what teachers think. A potential setback in my research design is that I have relied heavily on teachers to voluntarily provide feedback. There may be selection bias, as not all teachers chose to take my survey, and the teachers who did may not be wholly representative of NC teachers. Furthermore, 50% of the teachers who answered the survey taught in two regions: North Central and Piedmont-Triad Central, while only 16% of NC educators teach in either districts (North Carolina Public Schools Facts and Figures 2012/13). The regions educators teach in may have an effect on their responses, which we will discuss further.

The survey itself is divided into four distinct sections. The first section asks for descriptive information: district, level of school, type of school, years as a teacher, the subject taught, and receiving Standard 6 ratings. I looked for correlations between descriptive information and the outcomes of interest. The second section dealt with teachers’ understanding
of Standard 6. I asked about how well teachers thought they understand Standard 6 and how prepared they feel to respond to the Standard 6 results in their evaluations. Then, I asked four specific questions about what Standard 6 measures, how it is measured, and how Standard 6 ratings affect teachers so as to gauge how well a teacher understands this measurement in their teacher evaluation. There was a specific correct answer to each of those four questions, so I added up the individual respondents’ number of correct answers to give overall understanding scores. The third section looked into how positively or negatively the teachers view Standard 6 on two levels: for teachers and for students, and for personnel decisions. I measured teachers’ perceptions about how likely Standard 6 would benefit students and teachers according to teachers and created an overall score of positive or negative view for this first level. I also measured teachers’ perceptions about how likely Standard 6 would be used justly or wrongly to make dismissal and promotion decisions, which I also used to create an overall score of positive or negative view of this second level. These two scores on the likely effects of Standard 6 on teachers and students and personnel decisions helped give an idea of how positively teachers see Standard 6. Finally, the fourth section delved into the teachers’ perception of teacher involvement in the creation and implementation of Standard 6. In contrast to the previous section, this last part focused less on perceptions and more on actual teacher involvement. I analyzed to what level teachers felt that other teachers or they, themselves, had been involved in the creation and implementation of Standard 6. I also measured the extent to which teachers felt their feedback was heard and the means they used to provide feedback. These four sections provided the basis for analysis of correlations between demographics, understanding of Standard 6, and perception of Standard 6 and of teacher involvement.
Empirical Findings

I used two types of statistical regressions throughout my data analysis. On the one hand, I used simple regressions to see whether or not any of the numerical independent variables had statistically significant effects on the dependent variable. If several independent variables were significant for the same dependent variable, I checked for correlations between the independent variables, and then used a multivariable regression to see if there was further statistical significance. On the other hand, I used multivariable regressions for categorical independent variables. I compared the independent variables to an indicator variable, or a dummy variable, to see statistically significant differences between the independent variables in relation to the dependent variable. The dependent variables were understanding of Standard 6, perception of Standard 6’s effect on students, teachers, and personnel decisions, perception of teacher involvement, and perception of personal feedback. The independent variables included teachers’ experience level, subjects, level of school, having received ratings, and the dependent variables that were not being regressed.

Demographics

The diversity of experience of the North Carolina teacher respondents helped offer a holistic view of North Carolina public school teachers. Teachers from 89 of the overall 115 districts in North Carolina partook in the survey, with 611 total responses. The teachers included in the sample work in public schools and public magnet schools as they are to comply with the NCEES. Districts that are strongly represented include Granville, with 10% of the surveyed participants and Wake, with 7.5% of the surveyed participants, though Granville hosts 0.32% and Wake hosts 5.08% of NC teachers (North Carolina Public Schools Facts and Figures
Regions that are strongly represented relative to North Carolina as a whole were North Central, Sandhills/South Central, Piedmont-Triad/Central, and Northwest. The overrepresentation of these districts and regions may be a limitation of the findings if the geographical location of teachers has an effect on survey results. Table 2 below shows the representation of teachers by region compared to the percentage of the North Carolina population by region. This parallel aims to provide insight on why certain regions are more or less represented in the sample.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Percentage of teachers by region in sample</th>
<th>Percentage of NC Population by region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>2.13%</td>
<td>2.27%</td>
</tr>
<tr>
<td>Southeast</td>
<td>3.93%</td>
<td>6.95%</td>
</tr>
<tr>
<td>North Central</td>
<td>25.70%</td>
<td>22.03%</td>
</tr>
<tr>
<td>Sandhills/South Central</td>
<td>11.95%</td>
<td>11.41%</td>
</tr>
<tr>
<td>Piedmont-Triad/Central</td>
<td>26.68%</td>
<td>13.48%</td>
</tr>
<tr>
<td>Southwest</td>
<td>5.24%</td>
<td>2.42%</td>
</tr>
<tr>
<td>Northwest</td>
<td>12.27%</td>
<td>13.95%</td>
</tr>
<tr>
<td>Western</td>
<td>9.33%</td>
<td>8.37%</td>
</tr>
<tr>
<td>Unanswered</td>
<td>2.78%</td>
<td></td>
</tr>
</tbody>
</table>

The majority of the respondents teach elementary school level, which is partially reflective of North Carolina’s teacher demographic composition. In the sample, 64.86% of the teachers sampled teach elementary school levels, while in North Carolina, 72.8% of teachers teach grades pre-kindergarten through 8. On the other hand, more than 30% of the survey responses come from secondary school teachers, while 19.3% of North Carolina teachers teach
secondary school (North Carolina Public Schools Facts and Figures 2013). The representation of elementary school teachers and secondary school teachers in the survey sample does not exactly mirror North Carolina’s teacher demographics, as seen in Table 3. The differences between the sample and North Carolina teachers could be a limitation if the level an educator teaches at is a significant determinant in the results.

### Table 3: Number of teachers by level in sample vs. in North Carolina

<table>
<thead>
<tr>
<th>Number of teachers by level</th>
<th>Sample</th>
<th>North Carolina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary (Grades PK-8)</td>
<td>64.86%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Secondary (Grades 9-12 and 9-13)</td>
<td>31.86%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Other</td>
<td>3.28%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: North Carolina Public Schools Facts and Figures 2012/13

The sample includes teachers from the full range teacher experience. Approximately 10% of the participants have taught between 0 and 4 years, 20% have taught between 5 and 9 years, 37% have taught between 10 and 19 years, 23% have taught between 20 and 29 years, and 9% have taught for more than 30 years. Chart 1 below shows the spread of years of experience.

### Chart 1: Years taught by percentage of teachers

![Chart 1: Years taught by percentage of teachers](chart1.png)
Teachers are split between elementary school (40%), high school (31%), middle school (25%), and other (3%). Chart 2 below illustrates the levels at which educators teach.

**Chart 2: Level taught by percentage of teachers**

There is not a very significant difference between the different levels and the number of years teachers have taught. A similar number of teachers have taught the same number of years across all levels, as Chart 3 shows.

**Chart 3: Years and level taught by percentage teachers**
Most teachers teach multiple subjects (32%), and close to one quarter of the teachers teach Science, Technology, Engineering, or Mathematics (STEM), while another quarter teaches Social Studies and Arts and Languages. The spread of subjects taught is shown in Chart 4.

![Chart 4: Subject taught by percentage of teachers](image)

The spread of subjects educators teach varies according to which level of schooling they work in. Most elementary school teachers teach multiple subjects while middle school and high school teachers focus more on STEM and other subjects. The spread of subjects taught and levels is shown in Table 4 below.

<table>
<thead>
<tr>
<th>Table 4: Percentage of teachers by subject or level taught</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arts and Languages</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Elementary school</strong></td>
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<tr>
<td><strong>Middle school</strong></td>
</tr>
<tr>
<td><strong>High school</strong></td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Approximately 35% of the teachers had obtained Standard 6 student growth data, 68% of which had received one year’s worth, and 21% of which had received 2 years worth.
Understanding of Standard 6

The second part of the survey measures a teacher's understanding of Standard 6 through several questions on how Standard 6 functions in the North Carolina Educator Evaluation System (NCEES). Of the teachers who participated in the survey, 73% feel they understand Standard 6 well or very well while 19% feel that they do not understand Standard 6. Among the teachers who have received individual Standard 6 ratings, only 15% do not feel they understand Standard 6, as shown in Chart 5.

Chart 5: Perceived Knowledge of Standard 6: Scale of 1-5

Teachers overall feel they are ready to respond to the Standard 6 ratings they will receive. Furthermore, 53% of teachers feel that they are somewhat or very prepared to respond to their Standard 6 ratings while 37% of teachers do not feel prepared to respond to their Standard 6 results. Of the teachers who have received Standard 6 ratings, 30% do not feel prepared to respond to their ratings. These findings appear to indicate that teachers feel that they understand Standard 6 and have an idea of how they should interpret their evaluation results, as shown in Table 5.
According to the survey results, it is not clear that teachers’ perception of their comprehension is indicative of their actual understanding. When asked how much Standard 6 is weighed compared to the other measures, only 30% of the surveyed teachers answered correctly, that the weight was equal. Of the teachers who have received individual ratings, only 24% know the correct answer. Furthermore, only 38% of teachers know that Standard 6 measures the amount of growth a student has made over the course of a grade or subject, while 43% confused Standard 6 as measuring a teacher’s responsibility for that growth. Standard 6 measures how much a student has improved over a time period and attempts to relate gains or losses to how effective an educator is. However, Standard 6 ratings alone do not measure a teacher’s responsibility for student growth, they only measure a student’s growth. Around 26% of the teachers, equally spread between those who have received Standard 6 ratings and those who have not, know how Standard 6 is measured. The most correct answer to the question, as Standard 6 is measured differently according to the subjects and levels taught, includes analysis of student work, using the pre- and post-test growth model, and using the EVAAS growth model. Approximately 38% of the teachers think Standard 6 depends only on EVAAS, while 13% think it is measured according to student work and EVAAS. Furthermore, less than a third of the respondents know that teachers must meet expected student growth or exceed expected student performance.
growth to receive favorable Standard 6 ratings. Overall, only 12% of the teachers answered 75% or more of those questions correctly, as show in Chart 6.

**Chart 6: Actual Knowledge of Standard 6: Measured by 4 questions**

These findings suggest that teachers do not have a clear understanding of what Standard 6 consists of and how they can “meet expectations” for Standard 6. Though teachers may feel that they understand Standard 6, there are significant parts of Standard 6 that are not clear to them. Furthermore, only 43 of the teacher surveyed used at least one of the following tools to learn more about Standard 6: “Professional Development for School Leaders” conferences, web-based trainings from SAS Institute, Face-to-Face Trainings from the Educator Effectiveness Team, “E-Learning” modules when logged into Standard 6 online database, contact the Standard 6 helpdesk at SAS. This section of the survey suggests that teachers are misinformed, unaware of their lack of knowledge, and have not taken steps to learn more about Standard 6.

**Perception of Standard 6**

Teachers are skeptical that Standard 6 will benefit teachers and students and will support just personnel decisions. According to the regression model, these perceptions do not depend on
teachers’ understanding of Standard 6, level or subjects taught, or having received Standard 6 ratings. Educators who have more than 10 years of teaching experience are less likely to think Standard 6 will benefit teachers and students than more novice educators. More than 75% of teacher respondents agree that measuring student growth is useful to improve student learning, however only 10% consider Standard 6 to be a way to improve their teaching practice, equally spread between teachers who have and who have not received Standard 6 ratings. Furthermore, 68% think Standard 6 will not benefit students, and 72% think it will not benefit teachers. A teacher’s overall perception of the likelihood Standard 6 would benefit teachers and students is the average of four questions on Standard 6’s effects on teachers and students. The mean perception of Standard 6’s effects on teachers and students is 2.49 out of 5, with a standard deviation of 0.75. Chart 7 shows that teachers are skewed towards a negative view of Standard 6’s effects on teachers and students. Very few teachers think Standard 6 will have a positive effect relative to the number of teachers who view Standard 6’s effects as negative.

**Chart 7: Perceived likelihood Standard 6 would benefit teachers and students**
Teachers are skeptical that Standard 6 will increase the likelihood of just promotions and dismissals. According to the regression model, the surveyed respondents’ answers do not depend on understanding Standard 6, years of experience, level or subjects taught, or having received Standard 6 ratings. The lack of a correlation suggests that overall teachers are skeptical of the validity of Standard 6 to make promotional and dismissal decisions. More than 60% of educators think it is likely or very likely that a teacher would be dismissed unjustly because of Standard 6, while only 29% think it is likely or very likely a teacher would be dismissed justly because of Standard 6. Only 25% of the teachers think it is unlikely or very unlikely an educator would receive a promotion unjustly because of Standard 6 and 36% of the surveyed respondents think it is unlikely or very unlikely a teacher would receive a promotion justly because of Standard 6. A teacher’s overall perception of the likelihood Standard 6 would benefit personnel decisions is the average of four questions on Standard 6’s effects on personnel decisions. The mean perception of Standard 6’s effects on personnel decisions is 2.68 out of 5 with a standard deviation of 0.64. Chart 8 shows that teachers are skewed towards a negative view of Standard 6’s effects on teachers and students. Very few teachers think Standard 6 will have a positive effect relative to the number of teachers who view Standard 6’s effects as negative. However, many teachers maintain neutral views of Standard 6’s effects on personnel decisions, with a score around 3.
Educators are skeptical that Standard 6 is beneficial to students and teachers and a valid way to make personnel decisions. Overall, these perceptions do not seem to depend on whether or not teachers have received Standard 6 ratings, the number of years they have taught, nor the subject matters or level they teach. The only statistically significant variable in the regression models is teachers’ years experience on the effects for students and teachers, in that teachers with more than 10 years of experience are more likely to view Standard 6 as less beneficial.

**Perception of Teacher Input**

North Carolina public school teachers do not seem to think that teachers were involved in creating the changes in the evaluation policies. Nonetheless, the North Carolina Professional Teaching Standards Commission members – 16 practicing educators in NC schools – headed the creation of the NCEES. Classroom teachers are to participate in Educator Effectiveness Workshops between 2010 and 2014 to continue to improve the NCEES as it rolls out. Moreover,
800 teachers in the Educator Effectiveness Workshops are to help develop means to give Standard 6 ratings for non-tested subjects (North Carolina RttT Proposal 2010, 136). However, the survey findings suggest that teachers do not think fellow teachers represented them in the creation and implementation of Standard 6. According to the regression model, the surveyed respondents’ answers do not depend on understanding of Standard 6, years of experience, level or subjects taught, having received Standard 6 ratings, nor perception of the likelihood Standard 6 will benefit personnel decisions. The only statistically significant finding is that teachers who think Standard 6 will benefit teachers and students are more likely to think teachers were involved to create Standard 6. Less than 15% of the surveyed teacher respondents think it is likely or very likely that teachers were involved in developing the NCEES, and only 11% think that teachers likely participated in developing Standard 6 specifically. A teacher’s overall perception of the likelihood teachers were involved to create and implement Standard 6 is the average of two questions on teachers’ involvement. The mean perception of teacher involvement to create and implement Standard 6 is 2.27 out of 5, with a standard deviation of 0.97. Chart 9 shows that respondents’ answers are skewed towards a low likelihood score out of 5 that teachers were involved to create and implement Standard 6. Very few educators think teachers participated in the development of Standard 6 relative to the number of respondents who think teachers were involved. However, close to a third of teachers maintain a neutral view overall, with a score around 3.
Teachers overwhelmingly do not feel they were asked for feedback as Standard 6 was incorporated in the NCEES. According to the regression model, these findings do not depend on years of experience, level or subjects taught, having received Standard 6 ratings, knowledge of Standard 6, or perceptions of Standard 6’s effect on students, teachers, and personnel decisions. The only statistically significant finding shows that teachers who believe teachers were involved to create Standard 6 are more likely to think their feedback was listened to. More than 90% of the educators think they were neither asked for feedback on Standard 6 nor was their feedback taken into account during its creation. The average of three questions on personal feedback determined a teacher’s overall perception of the likelihood his or her feedback was asked for and listened to. The mean perception of the likelihood personal feedback was asked for and listened to is 1.46 out of 5, with a standard deviation of 0.63. Chart 10 below shows that the majority of
respondents’ answers are very skewed towards a low likelihood that teachers were asked for feedback on Standard 6 that was listened to. Very few teachers maintain a neutral view overall, with a score around 3.

**Chart 10: Perceived likelihood teachers’ feedback was requested and listened to**

Of the 49 teachers who said they did provide feedback, the vast majority gave informal feedback to their principal. Very few teachers felt their principal took their feedback into account before Standard 6 was implemented as, 92.7% did not feel their feedback was listened to. Nonetheless, principals did not necessarily have the power to change Standard 6’s approach according to the teachers’ feedback. Once Standard 6 was used in schools, the percentage of teachers who did not feel their feedback was taken into account decreased slightly to 78%. The change in the view of principals’ reception to teacher feedback suggests that principals were somewhat more responsive to teachers once Standard 6 was implemented in schools. The perceptions of feedback reception beyond the principal are not necessarily indicative North
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Carolina public school teachers’ views since the sample size is small. Nonetheless, North Carolina teachers as a whole do not seem to think teachers were a part of creation of Standard 6. Furthermore, NC educators overall do not feel their voice was heard if they did have the opportunity to provide feedback on Standard 6. Teachers could use a number of options to provide feedback on Standard 6 including informal feedback to the principal, contacting the NCDPI or participating in NCDPI meetings, contacting the NC State Board of Education (NCSBE), and attending NC Summer Institutes, which are training sessions for NC teachers. Table 6 below shows the teachers’ perceptions of feedback according to the ways the teachers provided feedback before and after Standard 6 was used in schools.

<table>
<thead>
<tr>
<th>Table 6: Feedback perception before and after Standard 6 was used in schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback perception before Standard 6 used in schools</td>
</tr>
<tr>
<td>Feedback was listened to</td>
</tr>
<tr>
<td>Feedback principal</td>
</tr>
<tr>
<td>Contact NCDPI</td>
</tr>
<tr>
<td>Summer Institutes (training)</td>
</tr>
<tr>
<td>Contact NC State Board of Education</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

These findings suggest that North Carolina teachers do not think teachers were a part of creation of Standard 6, and they do not feel that their voice was heard if they were able to provide feedback on Standard 6.

**Perception of most effective means to provide feedback**

More than 130 teachers provide specific ideas on what they think would be the most effective ways for teachers to be able to provide feedback. The two main takeaways are that
teachers feel they should be able to voice their opinion on Standard 6 and that they have not been heard. The three means teachers suggest would be helpful to provide feedback on Standard 6 include written feedback, training sessions, and meeting with North Carolina Department of Public Instruction (NCDPI) employees.

Over half of the teachers state that surveys, interviews, or opinion forums would be effective ways to allow for teachers to have a voice with policy changes. The respondents mention a range of possible organizations that could develop and distribute the survey including the NCDPI, NC Board of Education, School Improvement Team, North Carolina Association of Educators (NCAE), and Professional Educators of North Carolina (PENC). One teacher suggests asked that a third party research organization such as Gallup gather feedback and publish results so that the findings would not be biased. Another teacher recommends that the survey be sent directly to all NC teachers because principals sometimes forget to give the surveys to their staff. Several teachers emphasize the importance of the anonymity of the survey, stating they would be afraid and uncomfortable to give honest feedback on Standard 6 if their name were attached. Similarly, several teachers suggest NCDPI host an online forum where teachers could post their comments anonymously and discuss teacher evaluations issues as a whole. Anonymity is not necessarily as important to all teachers, as several respondents suggest the NC State Board of Education (SBE) tour the state and ask teachers directly about their perceptions and interpretations of Standard 6. Furthermore, respondents ask for more regional meetings with more local representatives who could meet with the DPI. Some teachers also recommend that parents and students explain what they feel the effects of testing for Standard 6 have on students. This feedback seems to indicate that teachers think there should be more
dialogue between policymakers and teachers. Utilizing anonymous surveys, online forums, and meetings with policymakers could facilitate communication.

Many teachers write specifically about the lack of dialogue and listening on the part of administrators and policymakers. Close to 25% of the statements suggest skepticism that even if teachers were provided the opportunity to give feedback on Standard 6, it would not be listened to. Below are some direct citations of the comments:

“Teachers have no real voice in the current trends in education. Authentic opportunities for teachers to provide feedback would be wonderful.”
- *Elementary school teacher of 15 years*

“I have not been asked for feedback. Further, I do not wish to give feedback, IF it is not going to be addressed... as is often the case.”
- *High school math teacher for 23 years*

“The methods [to provide feedback] already exist, but feedback is often ignored.”
- *Elementary school teacher of 13 years*

The above statements suggest a lack of confidence in the policymakers to value and incorporate teacher feedback. Teachers are under the impression that even if they were to provide feedback, policymakers would not react. This disconnect between policymakers and teachers is likely rendering the new policies less legitimate (Spillane et al. 2002).

**Perception of Standard 6’s legitimacy**

More than 80 teachers provide insight through open-ended comments on how they view Standard 6’s legitimacy more generally. Two main concerns frequently come out: multiple
Factors affect students’ grades, not just a teacher, and teachers should be measured with multiple sources of data, not just test scores. More than a quarter of the teachers speak about the problems with associating a teacher’s effectiveness with their students’ grades. Close to half of the respondents speak about their concern that Standard 6 would be based on standardized tests. Many teachers mention that several factors affect student growth including socioeconomic status, parent involvement, and native language. Calculations for Standard 6 ratings attempt to control for outside factors by using an entire class’s growth data and a part of the school’s growth data (NC RttT Proposal 2010, 129). Nevertheless, many teachers seem concerned that student growth data is not reflective of their effectiveness given factors outside of their control:

“I think a competent teacher should be able to show growth on their assessments; however, everyone will not show the same amount of growth due to a variety of reasons beyond an individual teacher's control; i.e. native language, attendance, lack of parental support…”

- Kindergarten teacher of 20 years

“Yes, I believe that all teachers should be evaluated and receive feedback about their evaluations. I also believe that student growth should be part of a teacher's evaluation. However, the Standard 6 process is too focused on test scores and there appears to be no consideration of the socio-economic status of students.”

- Middle school teacher of 4 years

The above statements suggest a lack of confidence in the validity of Standard 6 to relate student growth data to a teacher’s effectiveness. Standard 6 runs the risk of capturing more than teachers’ influence on growth data because factors outside a teacher’s control, such as socio-

Close to half of the teachers write comments about using multiple sources of data to measure teachers’ effectiveness instead of just using test scores. Teachers suggest using student work and portfolios of students’ progress over time. Many teachers are concerned that standardized tests would not be reflective of their students’ actual knowledge and progress. Some respondents mention that their subject is not necessarily tested, so the rating would be unjustified. Other teachers mention that they are evaluated based upon the entire school’s test scores or other grades’ test scores, so the Standard 6 ratings they receive are not reflective of their own students’ growth.

“I am evaluated on students I have NOTHING to do with.”

- Middle school teacher of 7 years

“If there are no effective measures in your discipline, any amount of training will still result in the rating being totally unjustified”

- High school teacher of 20 years

“Observations by peers and administration; data from multiple sources; self-assessment; participation in PLC and evidence of impact”

- Middle school teacher of 26 years
These comments suggest that teachers are concerned that Standard 6 does not fully capture student growth because it does not always use the individual teacher’s students’ data and is based principally on tests. For now, subject areas outside of English Language Arts, Mathematics, Science, and Social Studies do not have effective measures of student growth, so creating a standard approach to student growth data is not necessarily seen as legitimate. However, the Educator Effectiveness Workshops are working to incorporate student growth data in non-tested subjects, which may increase Standard 6’s legitimacy. Furthermore, teachers who do not have student growth data of their own are often evaluated on other students’ data with whom the teachers do not necessarily have contact. The lack of influence a teacher would have on those students seems to delegitimize student growth. Student growth data is being developed for the subjects and levels that do not currently have student growth data of their own, so this should only be a temporary issue. The concerns teachers have with the way Standard 6 is measured take away from its legitimacy as an effective way to evaluate teachers.

Conclusion

Principal findings

There are four main findings I would like to address.

1. Teachers feel that they understand the Standard 6 component of the NCEES better than they actually do. Many are not sure where the data comes from or how much Standard 6 is weighed compared to the other five standards of the NCEES. Teachers who have a better understanding of new policies are more likely to respond to them (Spillane et al. 2002). Therefore, helping educators better understand Standard 6 may increase the
likelihood that they would respond to their Standard 6 ratings and learn from the feedback it gives them.

2. Teachers are very skeptical of Standard 6 and are unsure it will work in a legitimate way. Educators are skeptical of the reliability of using Standard 6 ratings to make promotional and dismissal decisions. According to the regression model, respondents are skeptical of Standard 6 regardless of their understanding of Standard 6, years of experience, level or subjects taught, or having received Standard 6 ratings. Therefore, it does not seem that Standard 6 is seen as a trustworthy source of information for teachers, which in turn decreases its legitimacy.

3. Teachers do not think that other teachers were a part of the process to create Standard 6. The majority of teachers do not think fellow teachers represented them in the creation and implementation of Standard 6. According to the regression model, the surveyed educators’ answers do not depend on understanding of Standard 6, years of experience, level or subjects taught, having received Standard 6 ratings, or perception of likelihood Standard 6 will benefit personnel decisions. It does not seem that teachers’ actual involvement in creating and implementing Standard 6 was communicated effectively or understood by the respondents, which may create a feeling of disconnect between policymakers and teachers. Nonetheless, respondents who think Standard 6 will benefit teachers and students are more likely to think teachers were involved to create Standard 6.

4. Teachers do not feel that their voices were heard once Standard 6 was implemented. More than 90% of respondents did not feel that their feedback was listened to once Standard 6 was used in schools. The perception of the use of personal feedback did not
depend on years of experience, level or subjects taught, having received Standard 6
ratings, knowledge of Standard 6, nor perceptions of Standard 6’s effect on students,
teachers, and personnel decisions. Therefore, it does not seem that teachers feel they are
listened to, which would then decrease Standard 6’s credibility, rendering it less useful to
help teachers improve their teaching practice. However, teachers who think teachers
were involved to create Standard 6 are more likely to think someone listened to their
feedback.

Lastly, a key finding is that there is a confused understanding of Standard 6, which leads
to less trust in policymakers. Educators are concerned that Standard 6 does not separate out the
multiple factors that affect students test scores such as income level and parental involvement.
Moreover, teachers are skeptical that Standard 6 is not always a valid way to measure certain
subjects, and are concerned it does not always evaluate teachers with their own students’ data.
The legitimacy associated with other teachers being a part of the creation of Standard 6 is
missing, which is a key factor to the acceptance of a new policy. Furthermore, educators do not
feel like they would be listened to even if they had the opportunity to voice their opinion. This
leads to a lack of trust between teachers and administrators, hence a strong request for
anonymous surveys by NCDPI to allow for educators to give their opinion. Standard 6’s lack of
legitimacy is a problem because teachers are thus less likely to respond to their Standard 6
ratings, rendering the sixth component of the NCEES less helpful to improve the teaching
practice.
Limitations

A selection bias and equal representation are limitations of this study. The survey was entirely voluntary, which may create a selection bias. On the one hand, teachers who choose to respond to the survey may have very strong feelings about Standard 6, while most teachers in North Carolina do not necessarily feel as strongly. On the other hand, teachers who choose to respond to the survey may have a stake in the survey and have participated in the creation and implementation of Standard 6, while most teachers in North Carolina have not. Moreover, 50% of the respondents teach in either North Central or Piedmont-Triad Central. Close to 10% of the participants work in Granville in North Central, and 7.5% teach in Wake in the Western region. There are not statistically significant differences in findings according to which regions or districts educators taught in, so the relative overrepresentation of certain areas may not be a significant limitation.

Policy Implications

The findings indicated that there are two main issues that revolve around communication regarding Standard 6. Firstly, teachers believe that they understand Standard 6 more than they actually do, and are skeptical of the effect Standard 6 would have on students and personnel. There is substantial confusion and concern with what type of data Standard 6 uses. Moreover, teachers are concerned that Standard 6 does not control for the multiple factors that influence test scores outside of teachers’ control, such as income level. Teachers are concerned students will not benefit from Standard 6 and that its findings would prompt unjust personnel decisions. A potential policy solution to address the misunderstandings is for the teachers’ training to include clearer explanation of what data is used for student growth and how it would be representative of
teachers’ work. The training should also include information on how Standard 6 attempts to control for the outside factors by incorporating several years of individual student data and classroom data. Finally, the training should communicate more clearly how Standard 6 will affect students and personnel decisions. Furthermore the findings indicate few respondents took advantage of the different means to get more information on how Standard 6 works. NCDPI, district superintendents, or School Improvement Teams can be involved to communicate ways to obtain training and more information on Standard 6 more clearly. Teachers could also be required to attend training on Standard 6 specifically before they receive their teacher evaluations.

Secondly teachers do not think their feedback was listened to or that teachers were involved to create Standard 6. Furthermore, many teachers who filled in comments about Standard 6 do not feel they would be listened to even if they did provide feedback. Many teachers requested more surveys, opinion forums, and interviews to give feedback. The North Carolina Department of Public Instruction (NCDPI), North Carolina Association of Educators (NCAE), and Professional Educators of North Carolina (PENC) could be involved to work with principals and district superintendents to obtain feedback from teachers. The New Teacher Center administers the biennial North Carolina Teacher Working Conditions Survey to all NC educators, so integrating questions on Standard 6 to this survey could be helpful (North Carolina’s Teacher Working Initiative). Moreover, many teachers who filled in comments on Standard 6 spoke of a lack of trust and legitimacy of administrators and policymakers. More transparency as to how Standard 6 was developed and more open communication to incorporate teacher feedback could help address the issues of trust.
Further Research

A clear understanding of Standard 6, effective ways for teachers to provide feedback, and North Carolina’s Race to the Top application and implementation seem to be issues that could be researched further. Research on the most effective means to train teachers such that they truly understand policy changes would be very interesting and useful to policymakers. According to North Carolina’s RttT application, teachers would receive training and support to respond to their NCEES results (North Carolina RttT Proposal 2010, 139). However, as the survey responses have indicated, it does not seem that teachers have a clear understanding of Standard 6. It may be interesting to research what are the most effective ways to train teachers so they better understand policy changes generally or policy changes in teacher evaluations specifically. Another research topic that may be interesting is better understanding what is the most effective way for teachers to give feedback on new policies. According to the survey, many teachers did not feel like they were provided an opportunity to voice their opinion on Standard 6, or that their opinion would be heard. Doing research on the best ways for teachers to provide meaningful and helpful feedback on policy changes may be useful for policymakers as policies continue to evolve.

Another research topic that could be interesting would be the North Carolina’s Race to the Top application compared to the reality of what was implemented. Teachers have expressed concerns as to how Standard 6 works, which could be addressed through training. According to the RttT application, teachers would be required to go through training with NC Educator Evaluation System Support Personnel on NCEES and Standard 6 before receiving their teacher evaluations (North Carolina RttT Proposal 2010, 139). Though the survey that was administered did not ask specifically about whether or not educators participated in Standard 6 training.
through RttT training, it is not clear that educators did receive that training. Moreover, teachers expressed concern that their feedback was not listened to if they had a chance to provide feedback. In contrast, the RttT application specified that Teacher Effectiveness Workshops would allow for teachers to provide feedback and incorporate technical and policy design modifications to Standard 6 (North Carolina RttT Proposal 2010, 143). It is possible that there is a gap between what the application stated and what has been implemented. Research on what North Carolina has done to implement what it stated in its Race to the Top application may be helpful to better understand what has been done and where there is room for improvement according to this study’s findings. Finally, in a few years it may be interesting to study whether or not Standard 6 is affecting NC public school teachers’ career decisions. After Standard 6 was announced, some NC teachers spoke of retiring early, leaving the teaching practice, or moving to different states where value-added measures are not included (Gilbert 2013). It may be difficult to relate Standard 6 directly to teachers’ career choices, as other factors such as salary and tenure may affect teachers’ decisions. Research on teachers’ career decisions after Standard 6 may be useful to better understand how teachers react to policy changes they were skeptical of during their implementation.
References


Bernadette Leblond

## Appendices

### Table 1: Summary of Independent Variables

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<thead>
<tr>
<th>Independent Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
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<td>Positive consequences for students/teachers</td>
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<td>1.455357</td>
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<td>4</td>
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</table>

### Table 2: Summary of Regression with Knowledge of Standard 6 as Independent Variable

| Knowledge                           | Coefficient | Standard Error | t     | P>|t|   | 95% Confidence Interval |
|-------------------------------------|-------------|----------------|-------|-------|-------------------------|
| Years teaching                      | -0.0790313  | 0.0416217      | -1.9  | 0.058 | -0.1608199               | 0.0027573           |
| **Subjects**                        |             |                |       |       |                         |                     |
| Languages and Arts                  | 0.1743928   | 0.153469       | 1.14  | 0.256 | -0.1270594               | 0.4758451           |
| Multiple                            | -0.3367988  | 0.2061771      | -1.63 | 0.103 | -0.7419463               | 0.0683486           |
| Other                               | -0.2717351  | 0.2061772      | -1.32 | 0.188 | -0.6768828               | 0.1334126           |
| Social Studies                      | -0.3150594  | 0.1874711      | -1.68 | 0.094 | -0.6834486               | 0.0533299           |
| STEM                                | -0.1137866  | 0.1867106      | -0.61 | 0.543 | -0.4806816               | 0.2531083           |
| **Levels of school**                |             |                |       |       |                         |                     |
| Elementary                          | 0.4314799   | 0.2921338      | 1.48  | 0.14  | -0.1425763               | 1.005536            |
| Middle                              | 0.0982316   | 0.2965573      | 0.33  | 0.741 | -0.4845171               | 0.6809802           |
| High                                | 0.1464064   | 0.295471       | 0.5   | 0.62  | -0.4342077               | 0.7270204           |
| **Ratings and Perceptions**         |             |                |       |       |                         |                     |
| Received ratings                    | 0.0475467   | 0.097218       | 0.49  | 0.625 | -0.1434911               | 0.2385844           |
| Perceived understanding             | 0.0935082   | 0.0475204      | 1.97  | 0.05  | 0.0001284                | 0.186888            |
| _Constant                           | 1.086864    | 0.4298966      | 2.53  | 0.012 | 0.2420973                | 1.93163             |
Table 3: Summary of Regression with Likelihood Standard 6 would benefit teachers and students as Independent Variable

| Benefit teachers and students | Coefficient | Standard Error | t    | P>|t| | 95% Confidence Interval |
|-------------------------------|-------------|----------------|------|-----|-------------------------|
| Years teaching               | -0.1190282  | 0.0315559      | -3.77| 0   | [-0.1810409, -0.0570154]|
| **Subjects**                  |             |                |      |     |                         |
| Languages and Arts           | 0.172618    | 0.1175756      | 1.47 | 0.143| [-0.0583287, 0.4035648] |
| Multiple                      | -0.1077695  | 0.1554403      | -0.69| 0.488| [-0.4132358, 0.1976969] |
| Other                         | -0.2440742  | 0.1554612      | -1.57| 0.117| [-0.5495817, 0.0614333] |
| Social Studies                | -0.1720306  | 0.1424027      | -1.21| 0.228| [-0.4518759, 0.1078146] |
| STEM                          | -0.0692361  | 0.1412404      | -0.49| 0.624| [-0.3467972, 0.208325]  |
| **Levels of school**          |             |                |      |     |                         |
| Elementary                    | -0.3773748  | 0.218311       | -1.73| 0.085| [-0.8063927, 0.0516432] |
| Middle                        | -0.2892321  | 0.2213503      | -1.31| 0.192| [-0.7242227, 0.1457584] |
| High                          | -0.3765766  | 0.2206339      | -1.71| 0.089| [-0.8101594, 0.0570062] |
| **Ratings and Past Independent Variables** |             |                |      |     |                         |
| Received ratings              | 0.0539319   | 0.0735879      | 0.73 | 0.464| [-0.0906807, 0.1985444] |
| Perceived understanding       | 0.0874232   | 0.0364723      | 2.4  | 0.017| [0.0157489, 0.1590974]  |
| Actual Knowledge              | 0.0179827   | 0.0345839      | 0.52 | 0.603| [-0.0499805, 0.0859459] |
| Constant                      | 1.086864    | 0.4298966      | 2.53 | 0.012| [0.2420973, 1.93163]    |
Table 4: Summary of Regression with Likelihood Standard 6 would be beneficial to personnel decisions as Independent Variable

| Personnel               | Coefficient | Standard Error | t      | P>|t|  | 95% Confidence Interval |
|-------------------------|-------------|----------------|--------|------|--------------------------|
| Years teaching          | -0.0393973  | 0.0251127      | -1.57  | 0.117| -0.0887499               |
| Languages and Arts      | 0.0657149   | 0.1214658      | 0.54   | 0.589| -0.1729957               |
| Multiple                | 0.0237866   | 0.1014679      | 0.23   | 0.815| -0.1756232               |
| Other                   | -0.0442217  | 0.0809977      | -0.55  | 0.585| -0.2033263               |
| Social Studies          | 0.0445053   | 0.0965592      | 0.46   | 0.645| -0.1452576               |
| STEM                    | 0.0932368   | 0.0959328      | 0.97   | 0.332| -0.095295                |
| Levels of school        |             |                |        |      |                          |
| Elementary              | -0.0336105  | 0.1706855      | -0.2   | 0.844| -0.3690501               |
| Middle                  | 0.0503817   | 0.1728654      | 0.29   | 0.771| -0.289342                |
| High                    | 0.0537098   | 0.1725617      | 0.31   | 0.756| -0.2854169               |
| Ratings and Perceptions |             |                |        |      |                          |
| Received ratings        | 0.0057922   | 0.0577734      | 0.1    | 0.92 | -0.107747                |
| Perceived understanding | 0.0020046   | 0.0287077      | 0.07   | 0.944| -0.0544131               |
| Actual Knowledge        | 0.0276755   | 0.0270114      | 1.02   | 0.306| -0.0254087               |
| Benefit teachers/students | 0.3623747  | 0.036566       | 9.91   | 0    | 0.2905133                |
| _Constant               | 1.766761    | 0.2580617      | 6.85   | 0    | 1.259605                 |
Table 5: Summary of Regression with Likelihood Teachers were involved in the development of Standard 6 as Independent Variable

| Involvement                     | Coefficient | Standard Error | t     | P>|t|   | 95% Confidence Interval |
|---------------------------------|-------------|----------------|-------|-------|--------------------------|
| Years teaching                  | -0.0593634  | 0.0385236      | -1.54 | 0.124 | -0.1350734 0.0163465    |
| Subjects                        |             |                |       |       |                           |
| Languages and Arts              | -0.1212108  | 0.1866654      | -0.65 | 0.516 | -0.4880616 0.2456401    |
| Multiple                        | -0.0423597  | 0.1581133      | -0.27 | 0.789 | -0.3530974 0.2683781    |
| Other                           | 0.0666172   | 0.1243727      | 0.54  | 0.592 | -0.1776875 0.3109219    |
| Social Studies                  | 0.0286098   | 0.1485778      | 0.19  | 0.847 | -0.263388 0.3206076     |
| STEM                            | -0.1646431  | 0.1476975      | -1.11 | 0.266 | -0.4549109 0.1256247    |
| Levels of school                |             |                |       |       |                           |
| Elementary                      | -0.4690546  | 0.260939       | -1.8  | 0.073 | -0.9818741 0.0437648    |
| Middle                          | -0.3895559  | 0.2641026      | -1.48 | 0.141 | -0.9085929 0.1294811    |
| High                            | -0.3969588  | 0.2637119      | -1.51 | 0.133 | -0.9152279 0.1213103    |
| Ratings and Past Independent Variables |         |                |       |       |                           |
| Received ratings                | -0.0190899  | 0.0883774      | -0.22 | 0.829 | -0.1927767 0.1545968    |
| Perceived understanding         | 0.0742534   | 0.0438708      | 1.69  | 0.091 | -0.0119652 0.1604719    |
| Actual Knowledge                | 0.0892262   | 0.0413256      | 2.16  | 0.031 | 0.0080096 0.1704429     |
| Benefit teachers/students       | 0.3445144   | 0.0617741      | 5.58  | 0    | 0.2231106 0.4659182     |
| Personnel                       | 0.2416948   | 0.0720729      | 3.35  | 0.001 | 0.100051 0.3833386      |
| _Constant                       | 1.082029    | 0.4148899      | 2.61  | 0.009 | 0.2666515 1.897406      |
Table 6: Summary of Regression with Likelihood Participants gave feedback on Standard 6 that was listened to as Independent Variable

| Feedback                              | Coefficient | Standard Error | t     | P>|t| | 95% Confidence Interval |
|---------------------------------------|-------------|----------------|-------|-----|-------------------------|
| Years teaching                        | 0.1587862   | 0.1441033      | 1.1   | 0.281 | -0.1380001 - 0.4555725   |
| **Subjects**                          |             |                |       |      |                          |
| Languages and Arts                    | 1.153584    | 1.042401       | 1.11  | 0.279 | -0.9932805 - 3.300448    |
| Multiple                              | -0.0423597  | 0.1581133      | -0.27 | 0.789 | -0.3530974 - 0.2683781   |
| Other                                 | -0.3840258  | 0.6817577      | -0.56 | 0.578 | -1.788132 - 1.02008      |
| Social Studies                        | -0.2076088  | 0.6793679      | -0.31 | 0.762 | -1.606793 - 1.191576     |
| STEM                                  | 0.1031345   | 0.9718719      | 0.11  | 0.916 | -1.898473 - 2.104742     |
| **Levels of school**                  |             |                |       |      |                          |
| Elementary                            | -0.2064185  | 1.190115       | -0.17 | 0.864 | -2.657507 - 2.24467      |
| Middle                                | -0.096224   | 1.009238       | -0.1  | 0.925 | -2.174788 - 1.98234      |
| High                                  | -0.0254935  | 0.967018       | -0.03 | 0.979 | -2.017104 - 1.966117     |
| **Ratings and Past Independent Variables** |         |                |       |      |                          |
| Received ratings                      | 0.0958479   | 0.3389833      | 0.28  | 0.78  | -0.6023012 - 0.793997    |
| Perceived understanding               | -0.0548094  | 0.2441285      | -0.22 | 0.824 | -0.5576014 - 0.4479826   |
| Actual Knowledge                      | 0.3067905   | 0.1898927      | 1.62  | 0.119 | -0.0843008 - 0.6978818   |
| Benefit teachers/students             | 0.178989    | 0.2549242      | 0.7   | 0.489 | -0.3460373 - 0.7040152   |
| Personnel                             | -0.5431968  | 0.3600334      | -1.51 | 0.144 | -1.2847 - 0.1983059      |
| Involvement                           | 0.1023621   | 0.1918882      | 0.53  | 0.598 | -0.2928391 - 0.4975634   |
| Constant                              | 1.589077    | 1.838048       | 0.86  | 0.396 | -2.196455 - 5.374608     |

Survey administered to NC teachers

The research I am conducting for my honors thesis is geared to understanding how teachers perceive the development of Standard 6 of their teacher evaluations, which incorporates student growth measures.

This survey is anonymous and voluntary. It will take between 3 and 10 minutes to complete.

There will be a drawing for you to win $49. If you choose to participate in the drawing, you will have to provide your contact information, but your information will be kept completely separate from your responses. It will not be possible to trace your responses to your contact information.

If you have any questions, you can contact me at bernadette.leblond@duke.edu or my advisor Helen Ladd at hladd@duke.edu

If you agree to participate, please continue to begin the survey.

Demographics
- Which district do you work in?
- At which level of school do you teach (elementary school, middle school, high school)?
• At what type of school do you teach (public, public charter, public magnet, other)?
• How many years have you been a public school teacher?
• How many years have you been a public school teacher in North Carolina?
• What subject do you teach?

In 2011, the NC State Board of Education incorporated student growth measures into the North Carolina Educator Evaluation System (NCEES) as Standard 6. The text of Standard 6 reads as follows: “The work of the teacher results in acceptable, measurable progress for students based on established performance expectations using appropriate data to demonstrate growth.” NC piloted Standard 6 measures during the 2011-2012 school year and began using certain measures of student learning for Standard 6 in 2012-2013. Standard 6 incorporates several measures of student learning including, not limited to student exam scores. The following questions aim to measure your understanding and perception of Standard 6.

• Have you received individual Standard 6 ratings?
• If yes, how many years have you received individual Standard 6 ratings?

Understanding Standard 6
• Please rate the following (Likert scale: Very Much, Somewhat, Undecided, Not Really, Not at all)
  o How well do you understand Standard 6?
  o How well prepared do you feel to respond to the Standard 6 results in your teacher evaluation?
• Please select the response you find most appropriate
  o How much is Standard 6 weighted compared to the other Standards in NCEES?
    ▪ Less than other standards
    ▪ Equally – (Correct Answer)
    ▪ More than other standards
    ▪ Unsure
  o What answer is the best description of what Standard 6 measures?
    ▪ The amount of growth that a student has made over the course of a grade or subject – (Correct Answer)
    ▪ How much a teacher is responsible for a student’s growth over the course of a grade or subject
    ▪ The amount of growth that students are meant to make over the course of a grade or subject
    ▪ Unsure
  o How is Standard 6 measured?
    ▪ Based on analysis of student work
    ▪ Incorporating pre-post test growth model
    ▪ Incorporating Educator Value-Added Assessment System (EVAAS) growth model
    ▪ A and C
    ▪ All of the above – (Correct Answer)
    ▪ Unsure
• According to your understanding of Standard 6, what level of student growth does a teacher need to reach to be rated as “Meeting Expectations”
  o Open ended Answer: Same amount of progress as State Growth Standard (teacher’s index is equal or greater than -2 but less than 2)

Perception of Standard 6
• Please indicate how much you agree with the following statements (Likert scale: Strongly disagree…)
  o Measuring student growth is useful to improve student learning
  o Standard 6 is a way to improve the teaching practice
  o Standard 6 will benefit students
  o Standard 6 will benefit teachers
• How likely do you think the following are (very unlikely, somewhat unlikely, neutral, somewhat likely, very likely)
  o A teacher would be dismissed unjustly because of Standard 6
  o A teacher would be dismissed justly because of Standard 6
  o A teacher would be promoted unjustly because of Standard 6
  o A teacher would be promoted justly because of Standard 6

Perception of Teacher Input
• Please indicate how much you agree with the following statements (Likert scale: Strongly disagree…)
  o Teachers were involved in developing the North Carolina Educator Evaluation System (NCEES)
  o Teachers were involved in developing Standard 6
  o You were asked for feedback in the process of creating Standard 6
  o Your feedback was taken into account in the process of creating Standard 6
  o You were asked for feedback once the Standard 6 was used in your school
• Did you provide feedback once Standard 6 was used in your school? If yes, please answer the following questions
  o Please choose what you believe best describes the following sentence (Likert scale: Strongly agree, Agree, Undecided, Disagree, Strongly disagree)
    ▪ Your feedback was taken into account once the Standard 6 was used in your school
  o Which of the following methods have you used to provide feedback?
    ▪ Informal feedback to principal
    ▪ Call/email North Carolina Department of Public Instruction (NCDPI)
    ▪ Attend Summer Institutes. If so, which year(s)?
      • 2011, 2012
    ▪ Contact the NC State Board of Education
    ▪ Participate in NCDPI run meetings (please specify)
• Which of the following methods have you used to better understand Standard 6?
  o “Professional Development for School Leaders” conferences
  o Web-based trainings from SAS Institute
  o Face-to-Face Trainings from the Educator Effectiveness Team
• “E-Learning” modules when logged into Standard 6
  • Contact the Standard 6 helpdesk at SAS

• Are there methods that you think should be used to provide feedback?
  • Open ended answer