

Reducing Teacher Absences in North Carolina

A Report for
The North Carolina Department of Public Instruction

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May 2007

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Philip Price
Chief Financial Officer and Associate State Superintendent
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North Carolina Department of Public Instruction
301 North Wilmington Street
Raleigh, NC 27601

May 2, 2007

Dear Mr. Price,

Enclosed is our final report for the *Reducing Teacher Absences in North Carolina* spring consulting project. We would like to recognize the assistance of Professor Phil Cook, who aided us with our survey design, and Professor Charlie Clotfelter, who shared his valuable research regarding the effect of teacher absences on student achievement in North Carolina. We would also like to thank the administrators and teachers who participated in our focus group interviews in Pitt County. Thank you for providing us with the opportunity to work with the Office of Financial and Business Services in the North Carolina Department of Public Instruction.

Sincerely,

Libby Scott, Christine Vaughn, Matt Wolfe, and Casey Wyant

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May 2007

Executive Summary¹

Policy Question: Given the relationship between teacher absences and student achievement, how can the North Carolina Department of Public Instruction modify state policies to reduce teacher absences?

Four Recommendations (page 14)

1) Based on our analysis, we recommend DPI undertake a study to determine the differences in absence rates that occur in districts using an automated call-in system and those not using an automated call-in system. We believe that requiring teachers to report to a human instead of an automated system will decrease teacher absences. However, before implementing a change in the way teachers report absences, it is important to confirm that an automated system does, in fact, decrease absences.

2) Based on our analysis, we recommend DPI undertake pilot studies in several schools to examine the effectiveness of several monetary bonus models based on various target teacher attendance rates in order to determine the arrangement that decreases teacher absences in the most cost-effective manner.

3) Based on our analysis, we recommend DPI undertake pilot studies in several schools to test the effectiveness of the cash-out option. The studies should test the different money amounts per cashed-out day and different limits on the number of days available for cash out in order to determine which combination decreases teacher absences the most.

4) Based on our analysis, we recommend DPI ensure that free flu vaccines currently provided through the state health plan are available for all teachers at their school in the most cost-effective manner.

¹ *This student paper was prepared in 2007 in partial completion of the requirement for PPS 304, a course in the Masters of Public Policy Program at the Terry Sanford Institute of Public Policy at Duke University. The research, analysis, and policy recommendations contained in this paper are the work of the student team who authored the document, and do not represent the official or unofficial views of the Terry Sanford Institute of Public Policy or of Duke University. Without the specific permission of its authors, this paper may not be used or cited for any purpose other than to inform the client organization about the subject matter. The authors relied in many instances on data provided to them by the client and related organizations and make no independent representations as to the accuracy of the data.*

Four Problems (pages 1-3)

North Carolina has room for improvement in student achievement as measured by the Statewide National Assessment of Educational Progress. Furthermore, in the 2005-06 school year, 46 percent of North Carolina's schools did not meet expected growth as set by the state accountability system. Between the 1994-95 and 2002-03 school years, North Carolina teachers took an average of 7 days of sick leave per year. This relatively high rate of absenteeism among teachers as compared to other professionals is a problem. A study using data from North Carolina End of Grade (EOG) test scores shows that teacher absences negatively affect student achievement. Teacher absences also have other negative consequences for schools, such as increased discipline problems and decreased faculty and staff collegiality.

Background (pages 4-5)

Teacher absences occur more often in schools with higher percentages of low-income students and higher percentages of students reading below grade level. The leave policy of a district significantly influences teacher usage of leave days. Moreover, incentive programs and good working conditions can play a role in reducing teacher absenteeism. Under current leave policy, teachers earn several types of leave, but the most common type of leave taken by teachers on instructional days is sick leave.

Three Criteria (page 7)

We used three criteria to analyze the policy options:

1. Maximize student achievement.
2. Minimize costs.
3. Maximize political feasibility.

Options (pages 7-9)

We analyzed nine options in four categories to address the problem of teacher absences.

Modify Current Leave Policies

1. Allow more flexible use of leave time.
2. Create more stringent requirements for the use of sick leave.
3. Change the method of reporting absences.

Offer Incentives for Better Attendance

4. Offer monetary bonuses.
5. Offer “cash out” options.
6. Report teacher absences by school on NC School Report Cards.

Provide Health Support for Teachers

7. Provide free herbal supplements.
8. Provide free on-site flu shots.

Improve Working Conditions

9. Improve working conditions in one or more of the following ways: smaller class size, guaranteed daily planning, guaranteed duty-free lunch, crisis intervention training, improved administrative support, or improved staff collegiality.

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Policy Question: Given the relationship between teacher absences and student achievement, how can the North Carolina Department of Public Instruction modify state policies to reduce teacher absences?

I. FOUR PROBLEMS

The North Carolina State Constitution “guarantee[s] every child of this state an opportunity to receive a sound basic education in our public schools.”² Specifically, the State must “ensure there are competent teachers in classrooms.”³ Although this phrase has always been interpreted to focus on the competency of the teachers, another component inherent in the definition is that these teachers be in the classroom. Therefore, this section begins by analyzing the state of education in North Carolina through federal and state student achievement data. We then reveal the extent of the problem with teacher absences in North Carolina. Finally, we examine the impact these absences have on student learning.

Unsatisfactory Student Achievement

On the 2005 Statewide National Assessment of Educational Progress (NAEP), North Carolina ranked 33rd in 4th grade reading, 15th in 4th grade mathematics, 38th in 8th grade reading, and 19th in 8th grade mathematics.⁴ This data demonstrates that North Carolina has room for improvement in student achievement. The State may also be inadequately serving certain student populations: low income 4th grade students in North Carolina rank 34th in the nation in reading.⁵ However, the NAEP is a stringent measure of student achievement, particularly when compared to its state counterparts: the End-of-Grade (EOG) and End-of-Course (EOC) assessments. For example, although 82 percent of 4th grade students in 2005 tested at Level III (proficient) or above on the EOG test, only 29 percent tested at proficient and above on the NAEP.⁶

Even when evaluating student performance using the criteria from North Carolina’s ABC program, the State is not satisfied with its progress. According to the 2002 Education First Task Force,

[North Carolina’s] gains in reading have not kept pace with those in math. Troubling achievement gaps still exist, with minority and low-income students lagging behind, and North Carolina needs to raise the

² *Leandro v. North Carolina*, 477 S.E.2d 249, 255 (N.C. 1996).

³ *Leandro v. North Carolina*, 599 S.E.2d 365, 390 (N.C. 2004).

⁴ U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (2005). *National Assessment of Educational Progress: 2005 Mathematics & Reading*.

⁵ Education Trust (2006). *Education Watch North Carolina: Key Education Facts and Figures*, 5.

⁶ *Ibid.*

performance of all students. The state's drop-out rate is alarmingly high and its graduation rate unacceptably low. Teacher attrition is on the rise and extremely high in pockets of the state.⁷

In the 2005–06 school year, 46 percent of North Carolina's schools did not meet expected growth as set out in the state accountability system.⁸ According to the federal No Child Left Behind benchmark, over three-fifths of North Carolina schools failed to make adequate yearly progress (AYP).⁹

Teachers Not Answering the School Bell

In an evaluation of school-level teacher absenteeism data from 2,156 of North Carolina's public schools, we found that over 54 centuries of instructional time were lost due to teachers being absent in fiscal year 2006.¹⁰ In Pitt County, close to \$12,000 of lost teacher productivity was attributed to teacher absences—in one average school day! This amounts to over \$2,000,000 in lost productivity over the course of a school year. Sick leave accounted for 89 percent of these absences.

Granted every business has to incur costs for absent workers, but teachers have relatively high rates of absenteeism.¹¹ Between the 1994–95 and 2002–03 school years, North Carolina teachers took an average of 7 days of sick leave per year (3.9 percent). This does not compare favorably to rates of absence in 2005 for the general working population: 2.3 percent in the public sector and 1.7 percent in the private sector.¹² Among occupational fields comparable to teaching, community and social services have a 2.4 percent rate of absence and healthcare support has a 2.7 percent rate of absence.

⁷ Education First Task Force (2002). *Finish the Job: Building a System of Superior Schools*, 4.

⁸ North Carolina Department of Public Instruction (2006). *Education First: NC School Report Cards: School Years 2003–04, 2004–05, & 2005–06*.

⁹ *Ibid.* North Carolina Department of Public Instruction (2006). *Teacher Absences by School: Fiscal Years 2004–2006*.

¹⁰ North Carolina Department of Public Instruction (2006). *Education First: NC School Report Cards: School Years 2003–04, 2004–05, & 2005–06*. North Carolina Department of Public Instruction (2006). *Teacher Absences by School: Fiscal Years 2004–2006*. We took all of the absences for teachers in 2006 and divided it by 180 (the number of instructional days in the year), and then dividing it by 100 (the number of years in a century). 54 centuries in one year is not an aberration: the numbers were similar for 2004 and 2005.

¹¹ Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006). *Teacher Absences: Importance, Incidence, and Consequences*. *Not yet published*.

¹² U.S. Bureau of Labor Statistics (2006), *Labor Force Statistics from the Current Population Survey*. Table 47.

Teacher Absenteeism Affects Student Achievement

Using teacher-level data from North Carolina, Clotfelter et al. find that teacher absences affect student achievement.¹³ More specifically, the results of the study show that for each additional sick day a student's teacher takes, we expect the student's math EOG score to go down by 0.17 percent of a standard deviation and their reading EOG score to go down by 0.09 percent of a standard deviation.¹⁴ Our own regression analysis with school-level data confirms this small, but statistically significant, relationship between teacher absenteeism and student achievement. While the expected score decrease is less than one point for each day of absence, the effects of multiple teacher absences can add up. The results of a study of third graders in Indiana and Wyoming¹⁵ and a study of fourth graders in a large urban school district¹⁶ also demonstrate that teacher absences have a negative effect on student achievement.

While the study by Clotfelter et al. does not look at high school teachers, one might expect the effects on student achievement to be even larger, as high school lessons tend to be more cumulative. Furthermore, most high schools are on a block schedule, so one instructional day contains two classes worth of material.

Other Adverse Impacts

Although student achievement is the primary concern of this report, teacher absences have other consequences. First, when teachers are not consistently present, students tend to misbehave more; administrators must then dedicate more resources to discipline. Second, teacher absenteeism hurts school collegiality: when teachers are not regularly there, other teachers, administrators, and support personnel are not able to build the relationships critical to creating a productive work environment. Finally, absenteeism presents costs to state and local education agencies—both direct costs such as substitute pay and indirect costs such as expenses for recruiting new hires to replace teachers frequently discouraged by having to cover classes for their absent colleagues.¹⁷

¹³ Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006). Teacher Absences: Importance, Incidence, and Consequences. *Not yet published.*

¹⁴ *Ibid.*

¹⁵ Woods, R. C., & Montagno, R. V. (1997). Determining the Negative Effect of Teacher Attendance on Student Achievement. *Education, 118*(2).

¹⁶ Miller, R. T., Murnane, R. J., & Willet, J. B. (2006). The Impact of Teacher Absences on Student Achievement. *Not yet published.*

¹⁷ See Pitt County focus groups.

II. BACKGROUND

Distributional Aspects of Teacher Absences

Teacher absences in North Carolina have a distributional effect because absences occur more frequently in schools serving low-income students.¹⁸ Furthermore, high-absence schools are more prevalent among schools serving low-income students than those serving higher-income students.¹⁹ Other studies also find more teacher absences in schools with the poorest students and where a higher percentage of students are reading below grade level.²⁰

Other Factors Related to Teacher Absences

The leave policies, incentives, and working conditions relate to how many teacher absences occur in a given school or school district.²¹

Leave policies and incentives

Using data from New York, Ehrenberg et al. find that the leave policy of a district significantly influences teacher usage of leave days.²² More specifically, they find that the larger number of annual leave days permitted in a district, the larger the number of annual leave days used. Furthermore, they find that if a district has a sick leave bank, the district averages about one leave day *more* per year than districts without a sick leave bank. Studies show that if teachers are required to report absences directly to their principal by telephone, they will be absent less than teachers who can report their absences through a reporting center or school-based message machine.²³

Incentives also matter. Ehrenberg et al. find that the existence of more generous provisions for the buyback of unused sick leave days leads to lower annual usage of leave days.²⁴ Other studies show that absence rates fall when

¹⁸ Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006). Teacher Absences: Importance, Incidence, and Consequences. *Not yet published*.

¹⁹ *Ibid.*

²⁰ Pitkoff, E. (1993). *Teacher Absenteeism: What Administrators Can Do*: National Association of Secondary School Principals.

²¹ Ehrenberg, R. G., Ehrenberg, R. A., Rees, D. I., & Ehrenberg, E. (1991). School District Leave Policies, Teacher Absenteeism, and Student Achievement. *The Journal of Human Resources*, 26(1); Norton, M. S. (1998). Teacher Absenteeism: A Growing Dilemma in Education. *Contemporary Education*, 69(2); Dworkin, A. G., Haney, C. A., Dworkin, R. J., & Telschow, R. L. (1990). Stress and Illness Behavior among Urban Public School Teachers. *Educational Administration Quarterly*, 26.

²² Ehrenberg, R. G., Ehrenberg, R. A., Rees, D. I., & Ehrenberg, E. (1991).

²³ Winkler, D. R. (1980). The Effects of Sick-Leave Policy on Teacher Absenteeism. *Industrial and Labor Relations Review*, 33(2).

²⁴ Ehrenberg, R. G., Ehrenberg, R. A., Rees, D. I., & Ehrenberg, E. (1991).

schools implement bonuses for perfect attendance.²⁵ One study examined the short-term effects of monetary incentives on teacher absenteeism in a New York school district.²⁶ The results of the study show that the average number of teacher absences significantly declined during the first year of the incentive program. Thus, incentive programs can play a role in reducing teacher absenteeism.

Working conditions and supportiveness of coworkers and administrators

Studies show that a high level of job satisfaction at a workplace motivates the staff to serve the organization, and this attitude improves attendance.²⁷ One study shows that good working conditions (including strong and supportive principal leadership, good physical working conditions, high levels of staff collegiality, high levels of teacher influence on school decisions, and high levels of teacher control over curriculum and instruction) are associated with better teacher attendance.²⁸ Dworkin et al. also find that teachers who have supportive principals are less likely to report stress-induced illness.²⁹ In this same study, teachers perceived principals as being supportive if they made an effort to improve the working conditions of the teachers, set and enforced discipline for students, evaluated work fairly, provided adequate procedures for airing grievances, and supplied the teachers with performance feedback.³⁰

Limitations of research on absenteeism

The reasons given by teachers for their absences may not be accurate. If school policies only provide pay for certain types of absences, teachers may have an incentive to lie when stating why they are absent. This is a limitation in all absenteeism research.³¹ Furthermore, reasons for absences reported in a survey of teachers may also be incorrect because teachers may be afraid of reprisal, or the teacher may not remember the reasons for each absence.³²

²⁵ Miller, R. T., Murnane, R. J., & Willet, J. B. (2006). The Impact of Teacher Absences on Student Achievement. *Not yet published.*

²⁶ Jacobson, S. L. (1989). The Effects of Pay Incentives on Teacher Absenteeism. *The Journal of Human Resources, 24*(2).

²⁷ Norton, M. S. (1998).

²⁸ Hammond, O. W., & Onikama, D. L. (1996). *At Risk Teachers*. Honolulu, Hawaii: Pacific Resources for Education and Learning.

²⁹ Dworkin, A. G., Haney, C. A., Dworkin, R. J., & Telschow, R. L. (1990). Stress and Illness Behavior among Urban Public School Teachers. *Educational Administration Quarterly, 26*.

³⁰ *Ibid.*

³¹ Scott, K. D., & McClellan, E. L. (1990). Gender Differences in Absenteeism. *Public Personnel Management 19*(2).

³² *Ibid.*

III. METHODOLOGY

This project utilizes several types of information from various sources, including research, statistical data analysis, and interviews. We conducted a literature review of studies related to teacher leave policies, incentives, and working conditions, as well as the effect of teacher absences on student performance. We also reviewed current teacher leave policies as defined in the North Carolina Public Schools Benefits and Employment Policy Manual for 2006–07 (See Appendix A). We used the information gathered from these studies to help shape our alternatives and decide which ones will be most effective. We also used one particular study to determine the statistical effect of elementary teacher absences in North Carolina on student achievement on EOG tests.

The North Carolina Department of Public Instruction provided us with student achievement data for academic years 2003–04, 2004–05, and 2005–06 and teacher absence data for fiscal years 2004, 2005, and 2006. This information allowed us to determine the magnitude of the problem of teacher absences in North Carolina. We also accessed information on working conditions through the on-line results of the Teachers Working Conditions Survey, which allowed us to refine our alternatives and predict the political feasibility of these alternatives with teachers.³³

Under the guidance of Professor Phil Cook, we developed several questions surrounding teacher absences, perceptions of leave policies, and current working conditions for focus groups of teachers in Pitt County, North Carolina. We provided a list of schools, both with high and low academic achievement and with high and low teacher absences to Pitt County Schools, who then selected the final six schools. We conducted focus groups in two elementary schools, two middle schools, and two high schools (See Appendix B). The teachers completed short surveys about leave use and sealed these anonymous surveys in an envelope, which helped to ensure more accurate reporting (See Appendix C). The Department of Public Instruction provided us with information from a database of employee leave use in Pitt County Public Schools, which we compared to the teachers' self reported use of leave.

We also spoke to Julie Dwyer, of the North Carolina Association of Educators (NCAE). Ms. Dwyer provided information about the NCAE 2007-08 proposed legislative agenda, as well as additional information about teacher contracts. We used the information to help shape our alternatives and to determine the political feasibility with NCAE.

³³ Department of Public Instruction (2006). North Carolina Teacher Working Conditions Survey, <http://www.northcarolinatwc.org>.

IV. THREE CRITERIA

We used the following criteria to evaluate our policy options:

1. **Minimize teacher absences.** Policy options should minimize the amount of time that teachers spend away from the classroom.
2. **Minimize costs.** Policy options should minimize costs to the state of North Carolina and individual Local Education Agencies (LEAs).
3. **Maximize political feasibility.** Policy options should ensure political feasibility for the various stakeholders involved, including the State Board of Education, the Governor, local school boards, the North Carolina Association of Educators, individual teachers, administrators, students, and parents.

V. OPTIONS

Policy options have been divided into four broad categories: (1) modify current leave policies, (2) offer incentives for better attendance, (3) provide health support for teachers, and (4) improve working conditions. It is important to note that the policy options explained below are not mutually exclusive.

Modify Current Leave Policies

1. Allow more flexible use of leave time. Currently, teachers are only able to take sick leave in increments of half or full days. Allowing teachers to take off smaller amounts of time (e.g. 1 or 2 hours) for medical appointments might reduce the amount of time teachers are away from their students.
2. Create more stringent requirements for the use of sick leave. This option would require teachers to submit a doctor's note after absences longer than a set amount of time (e.g. 3 days or longer). Currently, administrators request this kind of documentation at their own discretion.
3. Change method of reporting absences. At present, most schools have automated call-in systems for reporting absences. If these were changed to human reporting systems, teachers might be less likely to call in sick for reasons other than illness.

Offer Incentives for Better Attendance

4. Offer monetary bonuses. This option would offer teachers monetary bonuses for perfect or commendable attendance. Teachers who have missed below a set number of days in a given period of time (e.g. school year, semester) would receive a monetary bonus. This option could be implemented at the school level as well.
5. Offer “cash out” options. Currently, teachers accumulate sick leave, but cannot receive compensation for unused sick leave until they retire. By allowing teachers to “cash out” a certain amount of their sick leave at the end of every school year or some other set period of time, schools can incentivize teachers not to use all of their days. This option might be especially helpful at reducing absences for younger teachers who are not planning to remain in teaching for their entire careers.
6. Report teacher absences by school on NC School Report Cards. Currently, the State of North Carolina publishes pertinent information on the condition of education for each school, every year, through the NC School Report Cards. Although student absences are reported, notably missing is data on teacher absences. This option would allow the public—the consumers of the NC education system—to assess the productivity of the school by the percentage of its instructors that are present in the classroom.

Provide Health Support for Teachers

7. Provide free preventative herbal supplements. Teachers are exposed to various illnesses by being in a school environment. By providing teachers with complimentary Airborne, we can help to reduce the amount of time that teachers spend outside the classroom for illness related reasons.
8. Ensure free flu shots are provided at every school. This option also gives teachers more control of their preventative healthcare and would likely reduce the amount of time teachers spend out of the classroom for illness related reasons.

Improve Working Conditions

9. Create better working conditions in schools. One reason behind teachers taking “mental health days” is the stress caused by teaching. This stress is magnified for teachers teaching in schools with poor working conditions. By improving working conditions in one or more of the following ways, we might be able to reduce the amount of time teachers spend away from their students:

- a. Create smaller classes.
- b. Guarantee daily planning for teachers.
- c. Guarantee duty-free lunch periods for teachers.
- d. Provide crisis prevention-intervention training.
- e. Improve administrative support.
- f. Improve staff collegiality.

VI. ANALYSIS³⁴

Modify Current Leave Policies

1. Allow for more flexible use of leave time.

This option may reduce the number of teacher absences by not forcing teachers to use full or half days for short medical appointments. However, teachers may also feel more inclined to miss time, because they will do so at shorter intervals. This option should not incur additional costs to implement, as teachers are allowed a certain amount of sick time per year already. Allowing more flexible use will be politically feasible as long as teachers are not forced to cover each other’s classes during their planning periods and lunches.

Outcomes Matrix for Alternative One: More Flexible Use of Leave						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Uncertain	Yes	Yes	Yes	Uncertain	Yes	Likely yes

³⁴ See Appendix D for full outcomes matrix.

2. Create more stringent requirements for use of sick leave.

Requiring teachers to submit a medical excuse for absences longer than a set amount of time (e.g. 3 days) will reduce the number of absences that teachers take for reasons other than illness. However, this option would not be politically feasible. Requiring teachers to submit documentation will likely create a negative school environment, turning administrators into police, and taking away from the professionalism of the teaching field. Given the potential backlash, this option may be difficult to implement. Additionally, this option may have some administrative costs related to monitoring absences and enforcing the policy, but should minimize costs in general.

Outcomes Matrix for Alternative Two: More Stringent Use of Leave						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Uncertain	No	Yes	No	Yes	Yes

3. Require teachers to report to a human instead of an automated system.

This option will decrease the number of absences, as teachers in our focus groups said they would be less likely to call in to a person if they were not actually sick. This option will be politically feasible, as it is a very minor change for most of the involved parties; however, there may be some disapproval from NCAE. This option will most likely minimize costs. Assuming that each school will need to pay someone to take absence requests for two hours a day, each day, schools that are currently using an automated system would need an additional \$3,600. However, schools will no longer have to pay subscription fees for automated systems (estimated at about \$480 per year), making the total cost of this option \$3,120 per school. While this option may seem expensive, the costs will be offset easily if teacher absences were reduced by approximately 1 absence per year per teacher in a medium-sized school (assuming substitute teacher costs are approximately \$70 per day).

Outcomes Matrix for Alternative Three: More Stringent Reporting Requirements						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Yes	Uncertain	Yes	Yes	Yes	Uncertain

Offer Incentives for Better Attendance

4. Offer monetary bonuses.

This option will directly incentivize teachers to attend school. In considering political feasibility, all of the stakeholders will support this alternative so long as costs are kept in control. The costs of this option are entirely dependent on the amount of the bonus and how many teachers take advantage of the bonus. In order to provide some predictability to the costs, the bonus could be tied to the direct and indirect costs of a teacher's absence. For example, the teacher's bonus could reflect the money saved by not having to hire a substitute teacher. Currently, when a teacher is absent for a day, assuming that her colleagues do not cover the class, it costs the school district \$70 per day to hire a substitute. If we can eliminate this absence, the school district may be willing to pay the teacher up to the cost of the substitute.

Outcomes Matrix for Alternative Four: Monetary Bonuses						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Yes	Yes	Yes	Yes	Yes	Yes

5. Offer "cash out" options

This alternative will be effective, but only for specific groups of teachers. For instance, teachers who are close to their retirement will not benefit from this option. Like the monetary bonus option, this alternative's effectiveness depends on the details of the program, such as: the point where a teacher becomes eligible for this option; the frequency with which a teacher can "cash out"; and how much money

each day would be worth. Provided the costs are not extreme, this option will be politically feasible. The costs of this option could be structured like the monetary bonuses to ensure that it is relative to the cost savings of reducing teacher absenteeism.

Outcomes Matrix for Alternative Five: Cash Out Options						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Yes	Uncertain	Yes	Yes	Yes	Yes

6. Report teacher absenteeism on NC School Report Cards.

This option will have an effect on teacher absences, assuming that teachers will feel some sort of responsibility for poor absence data reported for their school and that principals will take local action. However, it is unlikely to have a significant effect on teacher absences, at least in the short run. This option may not be politically feasible. While the Governor has long been a proponent of the School Report Cards, NCAE will be strongly against this proposal, as it reduces teacher professionalism. Because this data is already recorded, the costs will be minimal, only requiring an additional line on the school report card.

Outcomes Matrix for Alternative Six: Reporting Absences						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Uncertain	Uncertain	No	Yes	Uncertain	Yes	Yes

Provide Health Support for Teachers

7. Provide Free Preventative Herbal Supplements

Although our focus group interviews with teachers in Pitt County indicated that personal illness only accounts for 25 percent of all sick leave use, teachers who use preventative health methods, such as herbal supplements, may be less likely to be absent than teachers who do not take these precautions. Free herbal health

supplements may not be extremely effective in reducing teacher absences, due to the nature of the treatment and the small likelihood that teachers will take advantage of the service. In the best case scenario, these supplements will reduce teacher absences and decrease lost instructional time. This option will maximize political feasibility, since all relevant stakeholders are likely to be support an option that improves the health of teachers. This option will not minimize costs. Each 10-tablet pack of an herbal supplement like “Airborne” will cost approximately \$5 to \$7, although it is unknown how many packs each school will need to meet teacher demand.

Outcomes Matrix for Alternative Seven: Herbal Supplements						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
No	Yes	Yes	Yes	Yes	Yes	No

8. Ensure that free flu vaccines are provided for teachers at every school

Our focus group interviews in Pitt County revealed that the state health plan currently provides flu shots, but not every school actually received the flu shots for its teachers. This option, like the herbal supplements, may decrease teacher absences by reducing the risks of teachers becoming ill. Additionally, this option maximizes political feasibility because stakeholders are unlikely to object to an option that improves the health of teachers. A one-time flu vaccination will cost approximately \$15 per teacher. However, costs will be minimized if the state health plan continues to cover the cost of the flu vaccines.

Outcomes Matrix for Alternative Eight: Flu Shots						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Yes	Yes	Yes	Yes	Yes	No

Improve working conditions

9. Create better working conditions in schools

Since our interviews with teachers in Pitt County indicated that teachers in schools with poor working conditions are more likely to be absent than teachers in schools with good working conditions, this option will minimize teacher absences. By improving the working conditions in one or more of the ways previously mentioned, teachers will likely be more excited about coming to school, and the amount of lost instructional time due to teacher absences will decrease. The working conditions option is politically feasible, as all stakeholders involved are likely to be supportive of improving working conditions for teachers. The Governor will be particularly supportive of this option in light of his Teacher Working Conditions initiative. Because some of the possible methods of improving working conditions are costly, this option may not minimize costs. However, some ways of improving working conditions cost less than others. For example, encouraging administrators to be supportive of staff and encouraging administrators to involve teachers in school decision-making will not be as expensive as changing the physical environment of the school, which may require costly renovations.

Outcomes Matrix for Alternative Nine: Teacher Working Conditions						
Minimize teacher absences	Ensure political feasibility for the Governor	Ensure political feasibility for NCAE	Ensure political feasibility for DPI & State Board of Ed	Ensure political feasibility for local boards & school officials	Ensure political feasibility for students and parents	Minimize costs to NC and LEAs
Yes	Yes	Yes	Yes	Yes	Yes	No

VII. FOUR RECOMMENDATIONS

Based on our analysis, we recommend DPI undertake the following four recommendations:

1) We recommend a study to determine the differences in absence rates that occur in districts using an automated call-in system and those not using an automated call-in system. We have reason to believe that requiring teachers to report to a human instead of an automated system will decrease teacher absences. However, before implementing a change in the way teachers call in sick, it is important to confirm that an automated system does in fact decrease absences.

- 2) We recommend a pilot study in several schools to examine the effectiveness of several monetary bonus models based on varied target teacher attendance rates in order to determine the arrangement that decreases teacher absences the most.
- 3) We recommend a pilot study in several schools to test the effectiveness of the cash out option. The study should test the different money amounts per cashed-out day and different limits on the number of days available for cashing out in order to determine which combination most effectively decreases teacher absences.
- 4) We recommend that DPI ensure that free flu vaccines provided through the state health plan are available for all teachers at their schools.

VIII. IMPLEMENTATION

Require teachers to report to a human instead of an automated system

There may be a short adjustment time during implementation, but overall implementation should be feasible as human reporting systems were used in all schools before the move to the automated systems. However, before requiring all schools to switch to a human reporting system, we recommend a study to determine the magnitude of the effect on teacher absenteeism. A first step to studying the effectiveness of this option is to determine what schools in North Carolina still use a human reporting system. DPI can compare these schools to schools with similar teacher and student characteristics that use an automated system to analyze absence patterns. If this type of study does not prove feasible, DPI could also select schools for a pilot study to examine the effect of the human system in a before and after design.

Offer monetary bonuses

The actual implementation of a bonus incentive would be relatively simple, as the necessary data is already collected by the Office of Human Resources. The bonus could be included in one of the paychecks after the period of bonus consideration has elapsed. However, implementing a pilot study to determine the appropriate arrangement for the bonus program could be challenging. We recommend that DPI enlist social science researchers to design the study in a way that yields meaningful results.

The bonus would need to be set up in a way that would encourage not only perfect attendance but also good attendance. For example, teachers may get paid some lump sum amount for every day less than five absences. Another arrangement would be to create the incentive on the school level (to counteract the problem of adverse selection), so that a school staff would need to reduce absences per full-time employee by 20 percent and then once it reached an

acceptable level, maintain that level, in order to receive the bonus. A final consideration would be over what time period to arrange the bonus: weekly, monthly, semi-annually, or annually.

Because our data does not indicate exactly how much money would need to induce the behavior change, we suggest pilot studies in several schools to find the optimal bonus amount that will reduce absences while minimizing costs to the state. It might also be worthwhile to examine the effects of a bonus at schools with varying degrees of teacher absences.

Offer “cash out options”

This option would also be relatively easy to implement. As with the bonus, the “cashed-out” amount could be included on employees’ final paychecks. In order to test the effectiveness of this option, we recommend a pilot study. The pilot study could test the effectiveness at different amounts per cashed-out day, as well as different “caps” on the number of days that can be cashed out. It might also be worthwhile to examine the effects of this option at schools with relatively high numbers of less experienced teachers, as they might be more likely to take fewer days off in order to use the cash out option than more experienced teachers who have accumulated large amounts of sick leave.

Ensure that free flu vaccines are provided for teachers at every school

This option should be fairly easy to implement, as many schools already offer one-site flu vaccinations through the state health insurance plan. DPI will need to ensure that this option is available in all public schools.

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APPENDIX A: CURRENT TEACHER LEAVE POLICY

North Carolina teachers earn 1 day of sick leave each month, for temporary disability due to personal illness or injury. Teachers can use sick leave in various increments: hours, half day, or whole day and teachers still receive full pay when using sick leave.

In addition to sick leave, annual vacation leave is also important in North Carolina. Annual vacation leave cannot be used on days when students are in attendance. However, most vacation leave coincides with school vacation days, and teachers need their principal's permission to take any other vacation days off. The amount of vacation leave teachers earn depends on the number of years of service and can range from 1 to 2.15 days per month. Since teachers earn more vacation days the more years they have been teaching in North Carolina, it is likely that experienced teachers may have an easier time taking time off

Other types of leave include administrative leave (usually for training and not at a time the conflicts with classroom instruction) and other types of discretionary leave that reduces the teacher's pay to cover the cost of a substitute. The standard rate of \$50 per day is docked from the teacher's pay, regardless of whether a substitute is utilized. Examples of this type of leave include extended sick leave (granted on an individual basis), personal leave, and professional leave.

Several other categories of leave are included in a teacher's benefit package, including, but not limited to: educational leave, community responsibility leave, jury duty, court attendance, parental involvement leave, and worker's compensation.³⁵

³⁵ North Carolina Public Schools, Benefits and Employment Policies Manual, 2006-2007

APPENDIX B: PITT COUNTY FOCUS GROUP SCRIPT FOR MODERATOR

Lead Interviewer:

Thank you for so much for meeting with us today. We want you to know how much we appreciate your participation in our discussion. My name is _____ and I will be the moderator of today's discussion. Also with me is _____, she/he will be taking notes while we talk.

We are both former teachers and graduate students at the Terry Sanford Institute of Public Policy at Duke University. We are currently working on a spring consulting project with the North Carolina Department of Public Instruction. The purpose of our discussion is to learn more about teachers' use of leave time and to solicit your suggestions for improvements to current leave policies. Before we get started, let me point out several important issues. We are interested in your personal opinions on the topics we discuss. There is no right or wrong answers here, and we are not trying to achieve a consensus; so please feel free to share your ideas even if they differ from what others have said. Also, keep in mind that we are just as interested in negative comments as positive comments.

We will use your feedback to inform our discussion about how to modify teacher leave policies. We felt it was important to get the perspective of teachers and administrators as we crafted our suggestions.

All of your comments will be kept confidential and no names will be attached to any comments in our report.

Our conversation should last about _____ minutes.

Let us get started by going around the room and introducing yourselves and what grade(s)/subject(s) you teach here at _____ school.

I. School climate question(s)

What do you think about the current leave policies at _____ school?

Probes: are they flexible? Stringent?

What do you think about professional development that occurs during the instructional day?

Probes: is it a problem at this school?

Do you think that teacher absences are a problem at _____ school?

II. Leave policy alternatives

Here are some ideas we have to change leave policies, how well do you think they would work at _____ school?

- 1) Allow more flexible use of sick leave for appointments (hours/incremental v. half/whole day)
- 2) Requiring teachers to give doctor's excuses for absences (after how many absences?)
- 3) (If they have an automated system) Requiring teachers to call in to a person instead of an automated system
- 4) Providing a monetary incentive for perfect or good attendance
What amount would you suggest? How many days is good attendance?

APPENDIX B: PITT COUNTY FOCUS GROUP SCRIPT FOR MODERATOR (CONTINUED)

5) "Cash out option" for unused leave at the end of employment or a set period of time

6) Move professional development to non-instructional times.

Would you be willing to attend professional development on evenings or weekends if you were compensated?

What do you think about these other support services for teachers?

Free airborne or other preventative methods

Free flu shots/vaccinations

Employee access to school nurses

Mobile dental services

On-site counseling services

Is there anything else schools could provide that would make you able to attend more often?

III. Working Conditions

Thinking about teachers at _____ school, do you think that teacher absences are related to working conditions?

How so?

What improvements would you suggest to improve working conditions to reduce teacher absences?

Thinking about teachers on your team, department, or grade level, how many would you estimate are absent in an average week?

Do you think this affects student learning? How so?

IV. Wrap-up

Is there anything else you would like to share with us today?

Do you have any questions for us before we conclude?

Thank you again for taking the time to meet with us, we know how valuable your time is and we really appreciate your participation!

(Pass out individual leave mini-surveys and envelopes)

APPENDIX C: PITT COUNTY FOCUS GROUP INDIVIDUAL TEACHER SURVEYS

****All responses that relate to or describe identifiable characteristics of individuals may be used only for informational purposes and may not be disclosed, or used, in identifiable form for any other purpose.****

How many total days have you been absent in the 2006/2007 school year? _____

How many of these days have been coded as:

Sick Days _____

Personal Days _____

Annual Leave (not including winter or spring break) _____

Professional Leave _____

Of the days coded as sick leave, how many fell into each of the following categories:

Personal Illness/Injury _____

Family Illness/Injury _____

Health related appointments _____

Other reasons _____

If other, please state reason(s):

How many of your used sick days did you know about in advance? _____

Thank you for your participation.

Please put your completed response sheet in the provided envelope and seal.

APPENDIX D: OUTCOMES MATRIX

Criteria/ Alternative	Minimize teacher absences	Ensure overall political feasibility	Minimize costs to NC and LEAs
Modify current leave policies			
Allow for more flexible use of sick leave	Uncertain	Uncertain	Likely yes
Create more stringent use requirements	Yes	No	Yes
Require teachers to report to human instead of automated system	Yes	Uncertain	Uncertain
Offer incentives for better attendance			
Monetary bonuses for perfect or commendable attendance	Yes	Yes	Yes
“Cash out” option for unused leave	Yes	Uncertain	Yes
Report school absences on NC School Report Cards	Uncertain	Likely no	Yes
Provide health support services to teachers			
Supply free herbal health supplement for teachers	No	Yes	No
Supply free flu shots for teachers	Yes	Yes	No
Improve local working conditions			
Improve local working conditions for teachers*	Yes	Yes	No

* The results from the 2004 Teachers Working Conditions Survey indicated that teachers support guaranteed planning periods and duty-free lunch, improved school safety, improved facilities and resources, strengthened school leadership, improved support from leadership, increased teacher input in local school decisions, and better use of staff development days.