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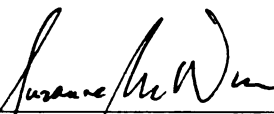
FROM STEPS AND LANES TO THE NASCAR CIRCUIT:
TEACHERS' RESPONSES TO PROFESSIONAL PAY

presented by

Debbi Cathy Harris

has been accepted towards fulfillment
of the requirements for the

Ph.D. degree in Teacher Education



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FROM STEPS AND LANES TO THE NASCAR CIRCUIT:
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By

Debbi Cathy Harris

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Abstract

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By

Debbi Cathy Harris

This study examines the voluntary Minneapolis Professional Pay Plan, and teachers' responses to it. Alternative compensation systems such as this have been proposed as mechanisms for improving teacher performance, yet attempts to implement these systems have rarely been successful. The incentives created by these systems are intended to align teachers' goals with the goals of their employers, consistent with principal agent theory. Using the lens provided by this theory, I focus on some of the obstacles and tradeoffs faced by the Minneapolis Public Schools as they introduce Professional Pay. I conducted a mixed method study, using both qualitative and quantitative methods and inductive and deductive inferential processes. Interviews with middle school teachers, school administrators, and district personnel and a survey of middle school teachers are the main data sources. Four primary obstacles to the policy's success emerge from the data: teachers' limited understanding of the policy, their unwillingness to surrender their professional autonomy in order to earn financial rewards, their limited interest in financial incentives, and their perception that the district is not credibly committed to the policy. These obstacles are largely ignored in current conceptualizations of principal agent theory, leading me to propose several elaborations to current theory. These include a greater focus on the impact credible commitment has on principal and agent behavior, explicit attention to issues of understanding, relaxation of the excess capacity assumption,

and greater attention to the role professionalism and other non-pecuniary factors play in decision-making. These elaborations enhance our understanding of the complex ways teachers respond to incentives.

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2005

This work is dedicated to God,
"I can do all things through Christ who strengthens me" (Philippians 4:13),
and to my family for their constant love and support.

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Chapter One

Dollars, Desires, and Disasters: Analyzing Teacher Incentive Policies

What is the “best” way to pay teachers? Should we continue paying teachers based only on their experience and education, or does this merely reward mediocrity? Would it be better to base teachers’ pay on their performance in the classroom or their students’ learning, or would this undermine cooperation among colleagues and encourage an unhealthy level of teaching to the test? There are no easy answers to these questions, and my study is designed to help us understand why. My vehicle for clarifying the effects of compensation systems on teacher behavior will be an examination of middle school teachers’ responses to an alternative compensation policy, the Minneapolis Professional Pay Plan (Professional Pay).

My interests in this topic are threefold. First, I was often frustrated by salary schedules during my own teaching career, since my salary and that of my colleagues did not seem to have any relationship to either our effort or our performance. I wondered if there was a better way. I am certainly not alone in asking this question. There is general agreement that the uniform salary schedule – the bureaucratic compensation system used in most schools – is imperfect: it provides few financial incentives for excellence, and the rewarded characteristics – experience and attainment of advanced degrees – are not well aligned with the characteristics of high quality teachers (Goldhaber, 2002; Rivkin, Hanushek, & Kain, 2000). However, while the problems with the uniform salary schedule are fairly obvious, it is not clear that alternatives will fare any better. There is

still much to learn about the effect that alternative compensation systems have on teachers' performance.

My second interest is theoretical in nature. Policy-makers often use an economic framework, specifically a simplified version of agency theory, when considering alternative compensation plans. The reasoning works something like this:

Currently, we reward teachers for longevity and for completing advanced degrees that may not positively affect their teaching and, by extension, their students.

Instead, it makes more sense to reward teachers for outcomes or actions that have a positive effect on students, such as raising student achievement or demonstrating high performance in the classroom. This argument is seductive; its logic appears unassailable.

Unfortunately, alternative compensation policies have rarely lived up to this promise. The logic used by many policymakers is oversimplified since it fails to recognize the complex interplay of incentives embedded within any compensation system, an interplay that has long been recognized within the fields of economics and public policy. The more sophisticated rendition of agency theory developed by economists allows us to understand the likely consequences of various compensation systems.

When I began this research, I believed agency theory would prove a valuable analytical tool, but I wondered if an economic model could capture all of the dynamics operating within a school environment. Economic models are often atomistic in their focus on individuals; agency theory is no exception. While the theory's focus on the individual is valuable, teachers do not operate in isolation. Their work lives take place

within institutional and political contexts that may have a powerful affect on teachers' responses to policy.

In addition, agency theory presumes that actors understand what they need to do in order to receive rewards and are able to take the necessary action. Thus, problems of imperfect understanding and limited capacity are largely ignored by the theory. Some teachers may need opportunities to learn how to improve before they can do so; ignoring the possibility of limited capacity may hinder effective implementation.

One final assumption that is often made by agency theory is that financial inducements are a strong motivator. However, other rewards, such as professional autonomy and improved student learning, may provide teachers with stronger inducements than the promised financial rewards.

My questioning of these assumptions brings me to my third interest, which is advancing our empirical understanding of teacher compensation policy. The issue of teacher compensation frequently appears on the educational policy agenda, for policy-makers and school administrators often presume that the current system is ineffective and that alternatives will result in improved teacher performance. Unfortunately, these alternatives rarely live up to their promise and careful empirical study may help us understand why this occurs. By exploring one alternative compensation policy – Professional Pay – using the agency framework, I hope to deepen our understanding of teacher compensation policy.

At the same time, I hope to use the Minneapolis case to refine and elaborate agency theory. As discussed above, several agency assumptions may be erroneous within the school context. By empirically testing both agency theory and its assumptions, this

study becomes part of a cycle whereby theory is developed, tested, refined, and retested, gaining conceptual sophistication and empirical usefulness over time.

Agency Theory: A Framework for Analysis

Agency theory has its roots in conflict between individuals. As long ago as 1776, Adam Smith recognized that company managers could not always be expected to work as hard as stockholders might desire. He noted that “such an unremitting exertion of vigilance and attention, as cannot long be expected from the directors of a joint stock company” (Smith, 1776, quoted in Jensen, 1994, p. 460) was required in order for a company to remain viable in the competitive marketplace.

Early economists recognized the existence of conflicting goals between employers and employees, but they were largely unable to explain why employment arrangements existed at all in the real world. Given the problems inherent in the employee/employer relationship, we would expect vertical integration of tasks to be managed through the use of short-term contracts between suppliers (the equivalent of employees in our discussion) and consumers (employers). Coase’s theory of the firm (1937) shed light on this dilemma. Coase realized that even imperfect employee/employer relationships would be preferable to short-term contracts under certain conditions. The reason is that there are costs involved in open market transactions. Separate negotiation of each transaction can eat up enormous amounts of time, both suppliers and consumers may be uncomfortable with the uncertainty involved in constant renegotiation, and exchanges made outside the firm are generally taxable while those within the firm are not. When these market costs exceed the costs associated

with the inefficiency of employee/employer relationships, it is economically desirable to establish those relationships.

Recognition of the rationale for employment helps us understand why employment exists, but it does not illuminate the underlying conflicts involved. The development of agency theory helps us understand why conflicts exist whenever two individuals enter into an employment contract. The underlying problem, understood by Adam Smith and refined by later economists such as Arrow (1985) and Alchian and Demsetz (1972), is that employers and employees do not always share the same goals. An employer may hope that his or her department will produce 50 game boards each day to complement the 50 sets of game pieces completed in another department, but an employee may find that level of production tiring and unpleasant. The manager of a social service agency may want cases handled as expeditiously as possible, but the social workers he or she employs may place a higher premium on improving their clients' lives, even if this proves quite time-consuming. Employment contracts that outline employers' expectations are used to minimize these conflicts.

Employment contracts attempt to align agents' goals with those of the principals who employ them.¹ In our case, teachers are the agents and incentive contracts are used to encourage them to behave in ways consistent with employers' preferences. Faced with incentives, agents can reasonably be expected to respond. These responses are sometimes compatible with the principal's goals, but often not.

¹ The agency theory "principal" is the entity with whom the agent enters into an employment contract. In a traditional public school system, the school principal is not the contracting entity and would not be considered the principal. Throughout this text, the word "principal" is used to refer to the contracting entity. School principals will be referred to as such or as school administrators.

Agency theory is predicated on the idea that people will change their behavior to increase their chances of receiving rewards or decrease the likelihood of undesirable outcomes. Parents implicitly understand this when they slap a toddler's hand as she reaches towards a stove burner – the child will associate touching the stove with the uncomfortable slap, changing her behavior so as to avoid both the burner and the slap.

That behavior will change in response to incentives is the key assumption of agency theory, but it is not the only one. Several other assumptions are made as well. The first relates to capacity. Agents must either have excess technical or effort capacity. Technical capacity relates to an individual's ability to work "smarter." In order for people to change their behavior, they must be capable of doing so. If we expect agents to improve their performance, they must possess the knowledge and skills necessary to do a better job or the time necessary to learn new skills. If a car salesman with no expertise in automobile repair is offered a financial incentive to assist in the repair shop when the sales floor is not busy, he is unlikely to be an asset to the repair shop unless he also receives training in mechanics.

Effort capacity relates to the employee's ability to work harder. For example, a piece rate worker on a factory job often has a limited ability to perform her job more efficiently. Certain steps must be followed, in a certain order, or the line ceases to function. In order to improve her performance, the piece rate worker must work faster; she must increase her effort. The assumption that excess technical or effort capacity exists, and the implications of its violation, will be discussed in greater detail in Chapters 3 and 5.

Another assumption underlying the theory is that the employment contract is not subject to multiple interpretations and that agents completely understand it. We assume that there is a single, monolithic incentive contract and that agents understand what they are being asked to do and the associated rewards. The gap between this assumption and the reality of the policy under study will become clear in later chapters.

Most agency theorists have assumed that agents are motivated solely by economic self-interest. Ethical motivation is largely ignored. Empirical evidence does not support this assumption. Most employment contracts are simple and incomplete and employee behavior is largely unmonitored (Stevens & Thevaranjan, 2003). This state of affairs begins to make sense when ethical motivation is incorporated into the theory (Arrow, 1985). There is evidence that agents will weigh their preference for greater reward/effort ratios against a preference for providing a “fair” or reasonable effort for the payment they receive (Stevens & Thevaranjan, 2003). In other words, shirking has a cost to the agent if it makes the agent feel that she has behaved unethically. In certain professions, agents may also begin to internalize social norms that prohibit shirking. The physician/patient relationship has been presented as an example of this (Arrow, 1985). Patients do not require their physicians to sign complex contracts before agreeing to pay for their care, yet patients are generally satisfied with the results and physicians rarely engage in grossly negligent behavior. This lack of shirking on the part of most physicians may be at least partially due to ethical norms instilled in them as part of their professional training. We will see in Chapter 5 that teachers may be another group whose work levels are often motivated by ethical, as well as economic, considerations.

Finally, we assume that the policy will continue in its present form into the foreseeable future and that promised rewards will be paid. When this is the case, credible commitment exists: the agent can trust the principal to appropriately reward her changes in behavior and, in the case of long-term rewards, that these rewards will persist for the life of the employment contract. Furthermore, under our assumption of complete understanding, we assume that agents are aware of that fact. The reasonableness of the credible commitment assumption has been explicitly questioned in the scholarly literature related to agency theory. This literature, and its implications for Professional Pay, will be examined in more detail in Chapter 4.

Even when the above assumptions are met, it is still difficult to design an employment contract that perfectly aligns agents' goals with those of the principal. This dilemma is largely due to the nature of most jobs and associated control problems. Two types of control problems – hidden action and hidden information – make it very difficult for a principal to design an incentive system free of perverse incentives for undesirable agent responses.

The problem of hidden action arises when the principal cannot accurately ascertain the agent's effort level. This arises when the principal cannot directly observe the agent's actions and when the effect of those actions is partially dependent on factors beyond the agent's control (Arrow, 1985). These conditions are both met in many employment situations. It is usually impractical for the principal to monitor what the agent is doing at all times. If the principal is constantly looking over the agent's shoulder, it tends to defeat the purpose of having agents in the first place. This occurs at all levels of the system. Stockholders cannot observe what the CEO of a company is

doing at all times and the manager of a restaurant cannot simultaneously observe the cashier, line cooks and sous chefs, wait and bus staff, and dishroom workers. This problem also occurs when principals (or their designated monitors – often the school principal) attempt to observe teachers' actions. Teaching is often work done in relative isolation. At best, the school principal or other monitor will only be able to observe a small portion of the teacher's actions since a great deal of teaching takes place behind classroom doors, with no adult observers present.

This lack of observation would not be a problem if outcomes were completely dependent on the agent's effort but, as with our first condition, this is virtually never the case. Output can rarely be considered a perfect substitute for effort because there is almost always a random element to output. The effort of a corporate CEO is not perfectly correlated with stock price, the outcome of interest to shareholders. Changing stock market conditions, consumer demand, and regulatory environments all affect stock price and are beyond the control of the CEO. An unpleasant customer may complain about the performance of an exemplary waiter and a soufflé may fail to rise in humid weather despite the chef's best efforts.

Principals who wish to correlate teachers' efforts and outcomes face a similar problem. Even if we are willing to assume that student achievement is the critical outcome of interest, teachers have limited control over that achievement. Some portion of student achievement can be attributed to an individual teacher's effort but a large part of achievement may be determined by factors as varied as the student's socioeconomic status and prior learning. When students do not achieve, it is difficult for the principal to

be certain that the problem has to do with poor teacher effort rather than these other factors.

It is also difficult to ascertain an individual agent's effort level when outcomes are the result of group effort. A student's ability to achieve is the result of the efforts of all the student's past and present teachers. It is very difficult to assign credit or blame to a particular teacher in these situations. This problem is recognized within the field, and scholars and policy-makers have attempted to design and implement measurement systems that isolate the contributions individual teachers make to student learning (Lee & Weimer, 2002; Sanders & Horn, 1998; Webster & Menro, 1997). Unfortunately, these systems are far from perfect. There is evidence that even the most sophisticated attempts to isolate teachers' contributions to student achievement suffer from measurement errors due to score volatility (Kane & Staiger, 2002; Rogosa, 1999) and a lack of comparability across grade levels (Martineau & Plank, 2004).

The problem of hidden action makes it nearly impossible to design an incentive contract that perfectly aligns the agent's goals with those of the principal and the problem of hidden information only serves to exacerbate the problem. Hidden information relates to the agent's incentive to misrepresent or withhold information from the agent if doing so may benefit the agent. Production workers may restrict their output and then attempt to convince management that they are working at capacity. In one classic study, a coworker described a colleague, Ray, as "one of the real heroes of the department" because, when the time-study man arrived to set Ray's production quota, "he'd jump around the machine like a monkey on a string, with the sweat just pouring off him...I never did see Ray sweat a drop when he was actually running a job; he was always about

40 pounds overweight, the laziest guy I ever did see” (Whyte, 1955, p. 17). Ray worked very hard to convince management that he simply couldn’t work any harder than he already was. The dishroom staff may attempt to convince management that they need additional staff to handle the onslaught of dishes that appear at the lunch hour not because they are incapable of managing the additional load but because doing so is unpleasant. Teachers may fail to reveal the full extent to which they can raise student achievement in an effort to avoid burdensome performance expectations.

Principals can avoid some, but not all, of the problems of hidden action and hidden information through monitoring. The downfall to this response is that monitoring is an expensive activity. The principal must balance the desire to obtain information about agents with the cost of doing so.

Control problems and monitoring costs will affect various teacher incentive systems in different ways. The remainder of this chapter will use agency theory as a framework for analyzing incentive systems. Teacher compensation systems will be categorized in several different ways and the implications of placement within each category will be analyzed. Theoretical expectations about the likely effects of the current bureaucratic teacher compensation system, performance (behavior)-based teacher compensation systems, and outcome-based teacher compensation systems will be discussed. Relevant empirical work will be noted as well. Following that, the implications of programs that are piece rate will be compared to those that are tournaments, and individual and group reward systems will be compared.

A Brief History of Teacher Merit Pay

Beginning in 1862, England established a system of teacher compensation known as “payment by results.” Under this system, teacher salaries were dependent on student attendance and on the number of students passing examinations. This would be typical of merit pay programs for the next hundred years or so. They generally linked teacher salaries to student outcomes in a relatively straightforward manner and little attempt was made to consider differences among student populations when calculating teacher rewards. Opinions about payment by results varied but many criticisms voiced in the 1800s echo current concerns about merit pay for teachers. Criticisms included concerns that it was impossible to capture everything that matters about teaching with a test, that test results were unstable from year to year due to random fluctuations unrelated to teachers’ efforts, that tests and testing conditions were not always consistent, that merit pay encouraged teachers to focus on certain students and certain material, that teachers had an incentive to cheat, and that teachers tried to move to schools with wealthier students since these students are more likely to pass examinations regardless of the quality of instruction received (Coltham, 1972; Rapple, 1992). There was little evidence that the program had its intended effect: encouraging teachers to perform at higher levels. In fact, some evidence suggests that the program encouraged teachers to behave in ways that were inconsistent with quality teaching. One teacher even wrote that, “When one of my backward boys died of bronchitis a few weeks back I felt a measure of relief; for his death would make one failure less” (Coltham, 1972, p. 26).

Despite these criticisms, payment by results persisted for thirty-five years. The program was eventually dropped, however, due to a combination of factors. One of these

was dissatisfaction with the program on the part of school inspectors. As the years passed and the inspectors responsible for program implementation retired, they often voiced their criticisms. One inspector described payment by results as “an ingenious instrument for arresting the mental growth of the child” (Coltham, 1972, p. 24), while another complained that one byproduct of payment by results was that “Children are passing out of the state-aided schools of to-day by thousands without having gained a love of learning, in fact with a positive dislike of acquiring knowledge” (Rapple, 1992, p. 307). Other factors contributing to the policy’s demise were that teachers, a group largely opposed to the program, were beginning to organize and gain power over their working conditions, and that the curriculum and pedagogy rewarded by the program were becoming unpopular with both educational leaders and the public.

Attempts to link teacher pay and performance were launched in the United States early in the twentieth century. During the progressive era, there was great interest among educational administrators in tying teacher salaries to their performance, consistent with the focus on efficiency that dominated both the public and private sectors during that time. Ellwood Cubberly and other leading educators advocated the use of merit pay plans on the grounds that they would increase system efficiency and help attract and retain the best teachers (S. M. Johnson, 1984). As was true of the Victorian period, these plans generally tied teacher pay to student performance. By 1918, almost half of surveyed U.S. school districts had instituted some form of merit pay for teachers (S. M. Johnson, 1986) but these programs were usually short-lived. Plans were often contentious, pitting teachers, administrators, civic associations, and organized labor against each other. An attempt in 1917 to introduce merit pay in St. Paul, Minnesota

caused such discord that it “polarized the city” (Thomas & Moran, 1992). The district superintendent was an enthusiastic supporter of merit pay and the issue was covered extensively by the media. Both the local teachers union and teachers themselves generally opposed the idea while many local school administrators expressed support. The Housewives League was opposed but 18 out of 22 women’s civics groups favored the idea. At the height of the controversy, when 14 teachers and principals had just been fired because of their vocal opposition to merit pay, the superintendent resigned to accept a higher-paying position in Buffalo and the idea was abandoned.

St. Paul was not the only district that abandoned the idea of merit pay. By 1928, enthusiasm had abated, with fewer than 20% of U.S. districts reporting using merit pay (Murnane & Cohen, 1986). In 1939 one scholar noted that districts were “discarding all attempts to reward teachers according to subjective ratings of efficiency” (Elsbree, p. 449). Elsbree explained to his contemporaries that, “the harmful effects on teacher morale of applying rating devices appear to more than offset the good that is derived,...since rating tends to accentuate rivalry it is, therefore, regarded as a destructive device to use in rewarding teachers, [and]...the total contribution of an individual teacher to the development of a particularly child cannot be measured accurately” (Elsbree, 1939, p. 450). Again, the criticisms of merit pay he outlined resonate with contemporary concerns: teacher disapproval, destruction of cooperative spirit, and the difficulty of developing and implementing valid and reliable measures of performance.

Interest in merit pay was rekindled in 1957 when Sputnik’s launching revived concerns about the quality of America’s schools. At that time, roughly 10% of districts began using merit pay but the majority of programs survived five or fewer years

(Murnane & Cohen, 1986). Only one-third of surveyed school districts that had a merit pay plan in 1959 still had the plan ten years later (Porwoll, 1979).

Interest in merit pay revived again in the 1980s. The frightening portrait of American education portrayed in *A Nation at Risk* left policy makers searching for ways to improve schools. President Reagan suggested that, “Teachers should be paid and promoted on the basis of their merit and competence. Hard-earned tax dollars should encourage the best. They have no business rewarding incompetence and mediocrity” (S. M. Johnson, 1984, p. 175), and by 1985, twenty five states had mandated the development of incentive pay programs for teachers (Frase, 1992). For example, Houston implemented the Second Mile Plan which provided teachers with financial incentives for entering teaching, as well as for high student test scores, low absenteeism, and teaching in geographic or subject shortage areas. During the first two years of the program, evaluators found conflicting results: measured factors – mainly student test scores and teacher attendance – had improved but teachers generally reported that the Second Mile Plan had not affected their behavior (L. M. Miller & Say, 1982). By the early 1990s, many programs, including the Houston plan, had disappeared.

Merit pay programs tend to be short-lived. A 1978 Education Research Service survey found that 183 school districts had experimented with merit pay plans for an average of six years before abandoning their programs (Frase, 1992) and that one-third of the plans had survived two years or less (Guernsey, 1986). The most common reasons for discontinuation were problems in conducting evaluations, administrative difficulties, teacher resistance, inadequate funds, and inadequate measurement instruments (Calhoun & Protheroe, 1983). When a similar survey was administered in 1983, the reasons given

for plan discontinuation were similar (Calhoun & Protheroe, 1983). A more recent study found that 75 percent of the merit plans a group of researchers studied in 1983 had been discontinued by 1993 (Hatry, Greiner, & Ashford, 1994).

In districts where merit pay plans persist, the plans have often evolved to become merit pay programs in name only. They change so that extra pay is tied to tasks outside classroom instruction, extra pay is awarded to virtually everyone, participation is voluntary with only a few teachers quietly participating, and teachers participate in plan design in meaningful ways (Murnane & Cohen, 1986). With the exception of teacher participation, these characteristics allow merit plans to persist by changing them into something other than merit pay plans.

Recent Teacher Incentive Programs

Merit pay has again attracted the attention of both policy makers and academics, this time in the form of both performance-based and outcome-based pay. Earlier programs, as well as some of the more recent ones, tended to be outcome-based. In outcome-based programs, teachers receive additional pay for increased student performance. These outcomes are usually weighted heavily towards student test scores but other measures, such as attendance and school leaving, may be included as well. Performance-based pay programs are those in which teachers are paid for demonstrated behaviors, such as the use of a specific pedagogical technique. In some of these programs, teachers are also rewarded for attending specific professional development opportunities.

The Consortium for Policy Research in Education (CPRE) teacher compensation group, headed by Allan Odden, has led recent efforts to educate policy makers about

alternatives to the uniform salary schedule. Odden and his colleagues have been particularly enthusiastic about the potential of performance-based pay to improve teaching, and CPRE has provided the practitioner community with both hands-on assistance in developing plans and with the theoretically-supported rationale for doing so (see Odden & Kelley, 1997). Several districts, including Douglas County, CO, Steamboat Springs, CO, and Minneapolis, MN (the district that is the focus of this study) have adopted or are in the process of phasing in merit pay plans that have been heavily influenced by the CPRE work. In addition, CPRE is conducting ongoing research on several merit pay plans to document their effects. This work promises to both enrich our scholarly understanding of alternative compensation and provide policy-makers with information that will assist them in designing future compensation programs.

Despite the recent attention given to performance-based pay, much of the published empirical work on merit pay focuses on outcome-based pay. The reasons for this are practical in nature. Several outcome-based plans are stable, having been around for a while. In contrast, most performance-based programs are relatively new, so there has not been time to ascertain and document their impact. Hybrid plans that include elements of both performance- and outcome-based compensation are also being used in some districts but, as with performance-based plans, these programs are too recent to be well represented in the current body of empirical research literature.

South Carolina initiated an outcome-based incentive program in 1984. The program rewarded schools that met criteria for student achievement (test score gains) and teacher and student attendance. The rewards were not distributed to teachers; they were used to supplement school funds, so the program is not technically a merit pay program.

It is still worth studying, however, since schools typically used their reward money to purchase items such as teaching supplies and room air conditioners that teachers were enthusiastic about receiving. When Richards and Sheu (1992) studied the South Carolina program, they were particularly interested in the distribution of rewards and the effect that different measurement systems would have had on award distribution. They found that South Carolina's system tended to reward wealthier schools despite the fact that schools were grouped into bands in an attempt to prevent that from happening. When they simulated several alternatives to the existing banding program, they found that while the favored groups changed, each alternative favored one type of school over another. While increasingly sophisticated measurement techniques are constantly being developed to avoid these problems, it will be very difficult to tell when bias has been completely eliminated since teachers and students are not randomly distributed throughout the system.

When researchers study outcome-based programs, they often find that programs have a positive effect on rewarded outcomes. Whether this is unequivocally good news, however, is not entirely clear. For example, improved student test scores are only a cause for celebration if they reflect increased student learning, not if they reflect increased gaming of the reward system by teachers. The Dallas Independent School District began a program to reward teachers for student performance in 1991. This group incentive program rewarded all of the teachers in a school for the gains made by the school's students. Gains were calculated using a sophisticated value-added methodology that attempts to remove the effects of socioeconomic status and other factors outside of the teacher's and school's control (Webster & Menro, 1997). Ladd (1999) analyzed the

impact of this outcome-based compensation system on student achievement and found that Dallas students did seem to be improving relative to the children in comparable Texas districts. While this is encouraging, the author cautions that the sources of test score improvements were not investigated in her study. It is unclear whether the improvement actually reflects increased student learning and whether there were any undesirable consequences of the program outside of its favorable impact on test scores.

Eberts, Hollenbeck, and Stone (2002) found that improvement on measured outcome characteristics did not necessarily reflect improved student learning. When the teachers in a Michigan alternative high school were offered a bonus for each student who completed their courses, the student course completion rate did improve. If the underlying purpose of the program had been course completion, that would have been fine, but the true goal was improved student learning. During the same period that course completion was improving, student attendance in class was actually declining. Students were being convinced not to drop classes (the rewarded measure) but they were not being convinced to come to class. Also, there was anecdotal evidence that teachers were diluting their coursework expectations to encourage students to remain enrolled in their classes.

Much recent research on merit pay has its intellectual roots in expectancy theory, a theory of motivation based on the premise that three conditions – expectancy, instrumentality, and valence – must be met to motivate individuals to change their behavior. The first condition, expectancy, is based on the employee's expectation that a change in his or her effort will affect measured performance. Let us suppose that a salesman will receive a cruise for every 20 cars he sells. Expectancy is high if the

salesman believes that his selling effort, rather than random luck or some other factor, will influence his sales and that he is capable of selling 20 cars within the designated period. For instrumentality to be high, the employee must feel that a change in measured performance will result in the receipt of the incentive. Our salesman must believe that the dealership will actually provide the cruise and not find an excuse to wiggle out of the obligation. Valence refers to an incentive's attractiveness. Valence is not limited to the stated reward; consequences ranging from pride in a job well done to increased exhaustion will all affect valence. Our salesman must find the idea of going on a cruise attractive. He might find the idea of being seen as a "winner" attractive as well but might not be looking forward to working longer hours in order to sell more cars.

As is true with any framework, the use of expectancy theory tends to highlight certain aspects of a merit pay program – its effect on motivation in this case – while providing us with fewer insights about others. Expectancy theory has its disciplinary roots in human resources – an area that has traditionally focused on issues of motivation. Agency theory, the framework that will be applied in my analysis, is less helpful than expectancy theory at unpacking the motivational aspects of merit pay but, as will be demonstrated in later sections, it is quite helpful when we are interested in unpacking the perverse incentives and unintended consequences embedded in virtually every pay plan. Agency theory's roots are in economics, a field that has tended to focus less on broad aspects of motivation and more on self-interested behavior by individuals who seek to maximize their economic utility. Each of the two strands of research, with their different foci, will contribute to our overall understanding of the effect compensation has on behavior.

Several published studies using expectancy theory have looked at outcome-based group incentives. In these programs, a school's teachers receive additional pay based on aggregated school-wide student test scores. One interesting finding that emerged in studies of the Kentucky and Charlotte-Mecklenberg, NC plans is that teachers said they were motivated to improve by the promise of increased student achievement, the positive recognition the program provided, or by the fear of sanctions but that the bonus money itself was not particularly motivating (Heneman, 1998; Heneman & Milanowski, 1999; Kelley, 1999). When surveyed, teachers tended to respond that they would rather have rewards allocated to school improvement than teacher bonuses (Kelley, 1999). This is consistent with claims that bonus money was not particularly motivating but inconsistent with teacher's actions when given control over reward allocations. Under the Kentucky program, each school's teachers voted on whether to earmark rewards for school improvement or for teacher bonuses. The teachers in 98 percent of rewarded schools voted to earmark at least some of the funds for teacher bonuses (Kelley, 1999). The reasons for this apparently contradictory behavior are not entirely clear but it is possible that teachers want to present themselves as altruistic and immune to the lure of mere money but, when faced with a concrete choice, they reveal their positively valent attitudes towards increased pay.

Surveyed teachers worried about their ability to affect student achievement in ways that would be captured by the assessment system. While they felt that it was generally appropriate to hold them accountable for student achievement goals, they expressed concern about being penalized for outside factors, such as lack of parental support, that were beyond their control (Heneman, 1998). Over half of teachers felt that

hard work would not be enough to allow them to earn rewards (Kelley, Heneman, & Milanowski, 2002). They worried that they did not have the skills, particularly pedagogical skills, to reach rewarded levels (Heneman, 1998; Kelley & Protsik, 1997) and that program administrators would continuously raise expectations over time. Even in schools that consistently received rewards in the past, roughly one-third of teachers were unsure whether cooperative hard work would allow them to receive future rewards (Milanowski, 1999). Teachers were also concerned about whether the established goals for individual schools were fair (Kelley & Finnigan, 2003).

Teachers say that incentive programs motivate them to work harder (Heneman, 1998). They spend more time on tasks related to teaching (Kelley, 1999) and take steps to align their teaching with the recommended curriculum (Kelley & Protsik, 1997). One problem with the program's success in focusing teacher effort is that it may narrow the breadth of these efforts. Some Kentucky teachers explained that they were concentrating on higher order thinking skills (which were heavily weighted in the assessment program) to the exclusion of basic skills and that they were deflecting thoughtful student questions so that they could cover all of the tested material (Kelley, 1999).

Many teachers complain that incentive systems increase stress. Part of this increased stress is the result of increased effort levels (Heneman, 1998; Heneman & Milanowski, 1999; Kelley, 1999; Kelley et al., 2002); teachers are working longer and harder. Another source of stress is the sanctions embedded in many programs (Kelley et al., 2002). While these can be direct sanctions, such as the reconstitution of schools that consistently fail to meet expectations, indirect sanctions such as the negative publicity

that results from the failure to appear of the list of rewarded schools cause a great deal of stress as well.

Current programs may lead to improved student learning since teachers report working harder to earn incentives but none of the studied programs can be declared unqualified successes. Increased teacher effort holds some potential for improving student learning but the increased stress that accompanies greater effort is troubling. Teachers may also lack the capacity, particularly the pedagogical skills, to make their increased efforts effective. In addition, there is some evidence that program designers receive exactly what they ask for. This is desirable when teachers keep broad program goals in mind while working to improve performance on measured indicators, but there is some evidence that gaming occurs as well – teachers concentrate on measured indicators even when this focus is inconsistent with exemplary teaching and learning.

The remainder of this chapter will discuss the implications that agency theory has for a general analysis of teacher incentive systems. This theoretical frame will highlight the tradeoffs and perverse incentives that are tangential in much of the current empirical work on teacher compensation.

A Typology of Teacher Compensation Systems

When considering teacher compensation, three main types of systems are generally discussed. These are usually referred to as bureaucratic systems, performance (behavior)-based systems, and outcome-based systems. Bureaucratic systems are often found in unionized professions; hours worked and tenure generally play a large role in compensation under these systems. In a performance-based system, some portion of salary is tied to observable behaviors by the agent, such as the number of cold calls

conducted by a salesperson or a teacher's demonstration of a specific pedagogical technique. As the name implies, outcome-based systems tie compensation to results, such as the value of goods sold by a salesperson or students' test scores. The remainder of this section discusses each conceptualization through the agency lens.

Bureaucratic Teacher Compensation Systems

The current uniform salary schedule used in approximately 95% of public school districts (Goldhaber, 2001) is a bureaucratic compensation system. Teachers are rewarded for years of teaching experience and for the attainment of advanced degrees. The salary schedule applies to all teachers in a district, regardless of subject or grade level, and is often negotiated by union representatives. When policy-makers discuss teacher compensation alternatives, they tend to have the most sophisticated understanding of the bureaucratic compensation system. This may be because the consequences of this compensation choice play out in our schools on a daily basis. Policy-makers are often familiar with the shortcomings of this system and many of their criticisms are valid. While this system is often criticized for its failure to reward high levels of teacher effort or achievement, it has several important advantages as well.

One benefit of bureaucratic compensation systems is that teachers have no financial incentive to direct their attention to certain students while ignoring others or to adopt specific pedagogical techniques whether or not they are effective with a particular group of children. As we shall see, some alternative compensation systems may financially encourage teachers to focus their attention on certain groups of students since increased performance by these children is likely to increase the teacher's pay. Other alternatives may provide teachers with financial incentives to teach in certain ways. This

is not a problem if the rewarded pedagogy will result in improved teaching and learning but this may not always be the case.

The uniform salary schedule also allows teachers to take risks with their pedagogy without facing financial risks at the same time. Teachers can take chances and learn new, ultimately more effective ways of teaching even if performance drops off for a while without worrying about a sudden drop in salary while they are mastering the new pedagogy.

Teachers believe that the uniform salary schedule is objective (Odden & Kelley, 1997). This is not a trivial benefit. If the compensation system is perceived as capricious, the principal will be forced to spend a great deal of time and effort dealing with complaints and low morale.

Another benefit is that bureaucratic compensation systems require minimal monitoring (Odden & Kelley, 1997). It is easy to determine a teacher's years of experience, particularly when a teacher remains in the same school for many years, and teachers can be required to submit a certified transcript when they apply for salary credit based on the attainment of additional degrees. The costs of obtaining the information necessary to effectively administer a bureaucratic compensation system are low relative to the costs associated with alternatives.

Another advantage is predictability of salary expenditures. Unless union negotiations force an unexpected change in the salary schedule, the principal can predict anticipated teacher salary outlays with a high degree of accuracy. Most areas of the country base school revenues on property taxes or state foundation allowances and have a limited ability to rapidly increase school revenues. The principal may be willing to

forego the benefits of incentive programs in order to maintain fixed, predictable salary costs.

A final advantage is that bureaucratic compensation systems give teachers no financial incentive to hide weak performance. Teachers can reveal weaknesses and ask for assistance without being concerned that their pay will suffer as a result of their honesty.

The main problem with this type of compensation system is that there is no financial incentive for teachers to maximize their work effort. Salary is based only on experience and education; performance is not considered. While other forces may encourage teachers to improve their performance, the compensation system provides no incentives to do so. Since there is no link between performance and pay, the principal has limited leverage to force teachers to improve their performance. If a teacher knows what needs to be done and chooses not to do it, the principal's only means of punishment are teacher dismissal (which would require demonstration of a gross failure to perform duty in the case of a tenured teacher) or relatively soft punishments such as placement in the classroom next to the gymnasium or assignment to the worst possible bus duty. The effects of punishments such as terrible bus duty are further diminished since union rules would probably prohibit this type of principal behavior so the punishment could not be explicitly linked to the agent's poor performance.

High quality teachers may feel unappreciated and unrewarded in bureaucratic compensation systems. While high quality teachers may feel intrinsic satisfaction and receive positive recognition from peers, parents, and supervisors, these messages will conflict with the message of mediocrity contained in their paychecks. The fact that low

performers in their district receive the same compensation as high performers may discourage high quality teachers from continuing to persist in the exhausting, often frustrating work of exemplary teaching.

Another problem with this schedule is that it creates adverse selection – it does not necessarily attract desired people to teaching. In the retail sales sector, bureaucratic compensation (pay based on hours worked) is more likely to be used than pay based on sales productivity when there is little discretion in the job and when managers view the sales position as “...just a job – just a way for people to earn some extra money. It’s not a career.” (Eisenhardt, 1988, p. 504). This pattern in retail sales is consistent with the predictions of agency theory and suggests that bureaucratic compensation may not be attracting desired candidates to teaching, a professional career that requires a great deal of discretionary decision making and where it is hoped that high performers will remain in the system for long periods. High performers have an incentive to choose business careers that will pay a premium for their talents and a disincentive to choose fields such as teaching that will not financially compensate them for excellence.

Performance (Behavior)-Based Teacher Compensation Systems

Performance-based compensation systems are intended to overcome some of the disadvantages of bureaucratic compensation systems outlined but simultaneously introduce a new set of difficulties. In this type of compensation system, some portion of a teacher’s salary is tied to the teacher’s performance. This is often achieved through the use of classroom observations of the teacher’s behavior but can also be linked to demonstrated acquisition of a desired skill set. The public understanding of performance-based compensation often appears to be quite thin when compared to their familiarity

(and accompanying contempt) for the uniform salary schedule. Policy-makers and the public rarely consider the problems of hidden action and hidden information and they also tend to assume that any reasonably astute observer should be able to easily and inexpensively identify quality teaching or the skills necessary to be a high quality teacher.

One important benefit of performance-based compensation is that it provides teachers with financial incentives to improve their teaching skills. This incentive system may be particularly motivating for teachers whose performance is close to the cut score performance levels for additional pay. PGA golfers are more likely to increase their effort levels as their scores move closer to the next payoff level in a tournament (Ehrenberg & Bognanno, 1990). This is particularly true as the financial payoffs between levels increase.

Another advantage of this type of compensation system is that it allows principals to reward differential teacher performance without the confounding influences, such as student background, that can make outcome-based compensation difficult to justify. While the perceived objectivity of systems varies, there is the potential for performance-based systems designed so that it is easy for teachers to understand why pay differentials exist and what they need to do to receive higher pay.

Performance-based compensation may also encourage high quality teachers to remain in teaching while reducing teaching's attractiveness to low performers. High performers will be financially rewarded for their increased efforts while poor performers may decide that other fields will provide them with higher salaries when they fail to receive performance bonuses.

One problem with performance-based compensation is that it can be difficult to connect measurable behaviors to quality teaching. The ultimate goal of principals is to encourage teachers to be high performers. While a great deal is known about teaching and learning, a certain amount of mystery and magic still remain. By one estimate, only about 3% of a teacher's contribution to student achievement can be explained by skills that are easy to measure (Goldhaber, 2001). The remaining 97% is attributable to qualities, such as enthusiasm, that are not measurable and for which good proxies are not available.

To make matters worse, there is no one teaching style or set of skills that is clearly superior to others. Some traditional teachers do a marvelous job of educating students and so do some constructivist teachers. These styles require different skills and look very different in practice. Designing a performance-based teacher compensation system that rewards all of the different manifestations of excellent teaching is an impossible task.

While the task of linking performance measures to quality teaching is quite difficult, recent research has begun to shed some light on this dilemma. Traditional teacher evaluation systems have generally done a poor job of identifying high quality teachers but subject-specific, carefully designed evaluations can substantially improve the strength of the relationship between teacher performance scores and student achievement (Porter, Youngs, & Odden, 2001). When examining four districts with teacher evaluation systems that were considered exemplars, researchers did find that the evaluation system did a better job of identifying high quality teachers (identified as teachers whose student test gains during the year exceeded expectations) than the experience measure rewarded

under bureaucratic compensation systems (Milanowski, Kimball, & White, 2004; White, 2004). In addition, a positive, significant relationship existed between overall performance scores and student achievement (Gallagher, 2004; Milanowski, 2004; Milanowski et al., 2004; White, 2004). Unfortunately, the strength of the relationship varied substantially depending on the grade and subject taught (Milanowski et al., 2004) and which subject area's student test scores were used (Gallagher, 2004; White, 2004).

A further problem arose when researchers parsed out the components of the overall performance score. In Cincinnati, planning and professionalism domain scores were more highly correlated with student achievement than instructional domain scores (Milanowski, 2004). This leads us back to the difficulty of measuring what matters. While instructional ability is clearly an important factor, and one that we want to encourage teachers to improve, our proxies for it are so poor that planning and professionalism appear to have a greater effect on student achievement than the instruction students receive. A final problem is that even the exemplary performance measures examined in these studies failed to identify teachers who were adept at closing the achievement gap within their classrooms as superior to those whose performance maintained or increased the gap – a shortcoming that could have serious implications for equity (Borman & Kimball, 2004)

Performance-based teacher compensation systems are vulnerable to abuse by teachers. Teachers may try to take advantage of the system by concentrating only on measured performance attributes and ignoring equally important, but unrewarded, behaviors. Teachers are encouraged to focus their efforts on measured behaviors under these systems. Given the complexity of teaching, performance-based systems cannot

assess teachers on the full range of desired behaviors and still be administratively feasible. Teachers have a financial incentive to spend excessive amounts of time on measured behaviors. This is not to say that teachers will ignore anything that is not measured by the system but the attention that they pay to non-rewarded behaviors is in spite of the compensation system, rather than because of it. This tendency to overemphasize rewarded behaviors has been observed in other groups such as NFL quarterbacks (C. Brown, 1990) and computer programmers (Prendergast, 1999). Given that much of good teaching remains unmeasurable, the quality of teaching could conceivably deteriorate even as measured performance improves.

Teachers may also concentrate on rewarded behaviors only in the context of an evaluation (Firestone, 1994). Most of teaching takes place behind closed doors; a teacher could choose to do the difficult work of high quality teaching only when being observed by an evaluator.

Finally, teachers may try to manipulate their class makeup to increase the proportion of easy-to-teach students in an attempt to make their teaching appear smooth and effective. High school teachers might encourage challenging students to transfer to a different class or to leave school altogether. Teachers with a particular gift for working with challenging populations might be discouraged from doing so. For example, a teacher who was particularly effective at working with mainstreamed emotionally conflicted children might feel that it would be financially prudent to minimize the number of these children placed in his or her classroom since any disruptive behavior might negatively affect the performance evaluation.

Another problem with performance-based teacher compensation is that the principal has a perverse incentive to decrease professional development opportunities for teachers (Firestone, 1994). As mentioned previously, school districts have a limited ability to fund rising salaries. While a district may want all of its teachers to improve, it may not be able to afford the increased demand for professional development that allows them to do so or to pay for the resulting performance-based salary increases.

School principals have often used existing low-stakes evaluations as a tool to encourage teachers and to build a team (Murnane & Cohen, 1986). Teachers are sometimes given high evaluations and then encouraged to live up to those evaluations. Favorable evaluations are also used to foster collegiality and feelings of administrative support. If evaluations are tied to salaries, inflated ratings will push salaries to unacceptably high levels. School principals and other evaluators will face pressure to keep average ratings at or below a certain affordable level. This will undermine the traditional motivational uses of teacher evaluations.

Performance-based teacher compensation systems require more monitoring than bureaucratic systems. Someone must evaluate teacher performance and this usually involves multiple classroom observations by a trained evaluator. The costs of these evaluations, in terms of training evaluators and time spent doing the evaluations and documenting compensation decisions, can be considerable. Another evaluation cost is the time that teachers may spend attempting to influence the evaluator. It is very difficult to reduce teaching to a set of objective measures – the technology of teaching is unclear and appropriate behaviors are context dependent. In addition, the evaluator can only observe a small slice of the teacher's performance, and employees are particularly likely

to try to influence evaluators under these conditions (Milgrom & Roberts, 1988). Rather than trying to improve their teaching, a daunting task, teachers may spend large amounts of time on the evaluator's pet projects or convincing the evaluator that the observed lesson was just the result of a bad day and does not reflect typical performance. The use of multiple evaluators can minimize this problem but it raises monitoring costs at the same time it reduces influence costs.

Unlike bureaucratic systems, performance-based systems may discourage teachers from revealing their weaknesses and seeking assistance (S. M. Johnson, 1986). Teachers who are struggling may try to hide their poor performance so that it does not negatively affect their pay.

Outcome-Based Teacher Compensation Systems

Given the difficulty of measuring teacher performance and the imperfect relationship between measurable performance and outcomes, outcome-based teacher compensation systems can be an attractive alternative but they are not an ideal one. As with bureaucratic and performance-based systems, there are advantages and disadvantages to using an outcome-based system. The public understanding of outcome-based compensation tends to be oversimplified. As discussed earlier, teacher performance is not the sole determinant of student achievement and disentangling the influence of other factors is a Herculean task. Despite this, outcome-based systems have a simple appeal – if we want teachers to improve student achievement, why not reward them for doing so? Scholars and educators who urge caution are sometimes dismissed as obstructionist preservers of the status quo and the arguments made on both sides often

ignore the interplay of benefits and problems created when outcome-based systems are adopted. A more thoughtful analysis is in order.

One benefit of this type of system is that it focuses attention on results rather than performance. As mentioned above, the technology of teaching is somewhat unclear. There is no agreed upon best method for teaching all children; a focus on results allows teachers to use their professional expertise to decide the best way to reach particular students.

Outcome-based compensation's objectivity may be attractive to teachers. Teachers are often familiar with the tests and other criteria (such as student attendance) being used to evaluate them and will appreciate that the evaluating entity cannot show favoritism when matching compensation to performance under this system.

Another advantage of outcome-based systems is that, unlike performance-based measures, they encourage teachers to seek assistance in weak areas. These systems do not penalize poor performance, only poor results. Teachers will be able to discuss their shortcomings and work with colleagues and administrators on solutions since doing so will enhance, rather than lessen, the chances of receiving incentive pay.

Another benefit is that holding teachers responsible for student learning makes sense to the public. Since taxpayers fund our public schools, it is important that they support any changes to the omnipresent uniform salary schedule.

Properly designed outcome-based compensation systems may encourage desirable candidates to enter and remain in teaching. While the link between effort and reward is not as clear as with performance-based systems, it is an improvement over the practically nonexistent link in bureaucratic teacher compensation systems. Candidates who believe

that they have the potential to be very effective teachers and teachers who are effective and receive incentive pay have an incentive to teach under outcome-based systems. This predicted increase in the quality of the work force is empirically verified in a study of auto glass workers (Lazear, 1996). When the Safelite Glass Corporation switched from a bureaucratic pay system to piece rates, more able employees tended to remain with the firm while unproductive employees left. Newly recruited employees under the piece rate system also tended to be more able than newly recruited employees under the bureaucratic pay system had been. The quality of the company's work force improved as a result of the move to outcome-based compensation.

One huge problem with outcome-based compensation is that it may exacerbate the existing maldistribution of teachers in the system. Under the current system, affluent suburban districts often offer higher base salaries than their inner city and rural counterparts. Tying pay to student performance will not rectify this problem and may make it even worse. Students in low SES schools often have a more difficult time achieving school success than their more affluent contemporaries. If pay is tied to absolute measures of student achievement, teachers have a strong financial incentive to transfer to affluent schools since they are more likely to receive achievement bonuses in these schools.

In an attempt to avoid this problem, value-added achievement measures can be used instead of absolute measures. With a value-added system, perverse incentives to move to more affluent schools are largely avoided. One potential problem with this is that value-added systems may institutionalize low expectations for certain students since past performance is used as a predictor of future potential. Another problem is that

teachers can only control their own performance in a given school year and there are factors affecting success each year that are outside of their control. Is it fair to sanction a teacher for poor performance if he or she put forth a strong effort but did not receive enough textbooks from the central office that year? Is it the teacher's fault if the curriculum mandated by the state is culturally irrelevant within the local community and parents do not support their efforts to teach it? In business, sales departments often blame poor quality for low sales while production departments blame halfhearted sales efforts (G. J. Miller, 1992). Teachers may blame poor achievement gains on factors outside of their control and feel that even the value-added system is unfair.

Another potential problem with the value-added solution is the complexity of most value-added systems. Teachers are unlikely to trust a compensation system they do not understand (Murnane & Cohen, 1986) and value-added systems are generally quite difficult to understand. Additionally, even if teachers trust the system, they may have trouble understanding the complicated relationship between their performance and the resulting gain score. This makes it difficult for them to improve their performance.

As with performance-based systems, the cost of administering and monitoring outcome-based systems is higher than the cost of bureaucratic systems. Student outcomes must be matched to particular teachers and testing conditions must be similar across classrooms if comparisons are to be made. Procedures for handling transient students and those with special challenges such as limited English proficiency must be developed and communicated. The design and maintenance of the system is often a complex task, particularly in the case of value-added systems. The cost of administering

and monitoring the incentive system may reduce the total money available for teacher salaries.

In addition to these costs, salary expenses will rise if the program is effective. Teachers will work harder, student achievement will increase, and teachers will earn incentive pay. The combined effect of higher salary expenses and higher monitoring costs may be more of a financial burden than districts are willing or able to tolerate.

Teachers have an incentive to discourage certain types of students from remaining in their classes under an outcome-based incentive system (S. M. Johnson, 1986) just as they did with the performance-based system discussed previously. If students are unlikely to be high achievers, teachers may discourage them from enrolling in their class. Teachers may also spend time and effort trying to influence school administrators to give them “good” students. While teachers may already engage in some of this behavior for other reasons, outcome-based compensation gives teachers a financial incentive to do so as well.

Besides productive time lost while teachers are attempting to influence administrators, teachers’ attempts to curry favor with the administrators responsible for student-teacher assignments may undermine collegiality in a school as well. Teachers are unlikely to work well with their peers when they feel that those peers are trying to steal all of the “good” students for their own classes.

Helping efforts among teachers may diminish under outcome-based compensation systems (Firestone, 1994). Teachers may refuse to “waste” time helping each other when doing so takes away from time they could spend improving their own results. In a study of physicians in group practice, teamwork (measured as the frequency with which

physicians discuss another group member's case in an advisory capacity) was less likely to occur when group revenues were divided according to individual case revenue than when revenues were split evenly among the group's physicians (Encinosa, Gaynor, & Rebitzer, 1997).

This type of system also gives teachers financial incentives to concentrate only on the knowledge needed for the current year's assessments rather than spending time introducing ideas that will not be tested until the following year. Education is cumulative; concepts may be introduced one year but not tested until the child has been exposed to them several times. The fourth grade teacher's compensation will suffer if the third grade teacher prepares students quite well for the third grade test but leaves them unprepared to succeed in the fourth grade. This is hardly a recipe for improved teamwork and collegiality.

Outcome-based systems tend to encourage agents to take a short-term view of improvement. In one empirical study, it was found that mutual fund managers change their behavior after interim return figures are released to the public (K. C. Brown, Harlow, & Starks, 1996). If a fund shows an above average interim return, managers act very conservatively for the remainder of the year. If the fund has below average interim returns, managers take much greater than normal risks for the remainder of the year. Once the new year begins, both groups revert to their normal behavior until the following year's interim return figures are released. Navy recruiters tend to engage in behaviors such as high school visits that will improve long-term recruitment efforts early in their measurement cycle but, if they are close to a reward cutoff, they will engage in short-term recruitment efforts as the end date for rewards approaches (Asch, 1990). Outcome-

based pay may encourage teachers to take actions that maximize their short-term chances of receiving merit pay each year even if those actions are not the ones that maximize their long-term growth as excellent teachers or their students' learning.

The reliability of outcome-based measures is another problem. If a single test score is used to measure teacher performance, volatility due to sampling variation (the characteristics of a particular cohort of children) and one-time factors (such as a flu epidemic) casts doubt on the reliability of results (Kane & Staiger, 2002). Increasing the number of tests included in the compensation system lessens this problem but adds to the cost of program administration. If multiple years of data are included, teachers may be unwilling to expend effort on performance improvements that will not be rewarded for several years. This pattern was observed in Navy recruiters: as the period between rewards lengthened, effort was reduced (Asch, 1990). Extending the period between rewards may be a particular problem in education where merit pay plans have tended to be short-lived – teachers may hesitate to expend effort when the merit pay plan may not even survive the measurement cycle.

Measures used in outcome-based compensation systems tend to be quite limited. Attention is often focused on academic achievement as measured by standardized tests. Agency theory predicts that what gets rewarded will get done and other things may be ignored. There is some evidence that employees in the public sector may be particularly likely to focus their attention on rewarded outcomes even when the amount of the reward is small (Courty & Marschke, 1997). Teachers may focus on the rewarded outcomes simply because they provide them with clear, measurable objectives in an otherwise confusing environment. If policymakers only care about standardized test results, a

system that heavily rewards teachers for test results is fine. This is unlikely to be true, however; schools have historically had multiple, conflicting goals. The tendency of outcome-based compensation systems to target effort towards a narrow set of goals may explain why these systems have been used so infrequently in the public sector. Most public agencies have numerous competing goals, and high-powered incentive programs do not work well in this type of environment (Courty & Marschke, 1997; Dixit, 1997).

Policy makers may add a variety of measures to the system in an attempt to correct for this problem. As was a potential problem with value-added outcome measures, the use of multiple measures may confuse teachers and make them distrust the system. Another problem with increasing the complexity of the system is that it may give teachers more opportunity to use the system to their own advantage than simpler systems. As the complexity of executive compensation programs increases, executives find opportunities to manipulate the system so that they are paid extremely well when performance is outstanding but are still relatively well paid when they perform badly (Tosi & Gomez-Mejia, 1989). Teachers may discover ways to manipulate complex systems as well, particularly when they are involved in system design.

When teachers are rewarded for high absolute student performance, they have a financial incentive to focus on students whose achievement is relatively easy to improve. They may underserve gifted students since these children will have relatively high achievement even without a great deal of teacher attention. In addition, it is very hard to move children from the 97th percentile in achievement to the 99th percentile. Children with disabilities may also be ignored, either because they are excluded from the tested

population or because the achievement levels of non-disabled children are easier to increase.

A final disadvantage is that these systems give teachers a financial incentive to focus strongly on tested items and even to cheat on the test. Cheating can take many forms, from outright changing of student answers to more subtle means such as encouraging absenteeism on testing day for certain students. While encouraging students to cheat would never be desirable, the consequences of focusing on tested items are somewhat less clear. If the tests are well designed, aligned with the curriculum, and include attention to higher order thinking skills, problems are minimized. On the other hand, if a test's main virtue is that it is inexpensive, rather than excellent, the disadvantages of teaching to the test are obvious.

It may be possible to minimize teachers' tendencies to focus disproportionate attention on certain students or portions of the curriculum through careful monitoring. Besides the cost involved in increased monitoring, there is some evidence that monitoring is particularly problematic in the public sector. It is very difficult to minimize the discretion of street level bureaucrats such as teachers since rules cannot describe the full range of decisions that must be made (Lipsky, 1983). This means that monitoring in many parts of the public sector must be both close to particular situations and sensitive to changing conditions. In a study of the Federal Job Training Program, these conditions were not met and monitoring was ineffective (Courty & Marschke, 1997). Even when monitoring problems are recognized, the presence of multiple stakeholders with conflicting goals and entrenched bureaucracy within the public sector make it very

difficult to get consensus about what should be done to improve the assessment system (Courty & Marschke, 1997).

Piece Rate and Tournament Incentive Systems

Alternatives to bureaucratic teacher compensation systems offer teachers the opportunity to earn higher pay through attainment of certain performance or outcome goals. The link between the measure used and increased pay can be established in two ways. The first of these – piece rate – is when a reward is earned through attainment of an absolute, fixed goal. In these systems, teachers are told what performance or outcome level they must reach in order to receive rewards prior to the beginning of the measurement period. The second – tournament – is when rewards are based on the relative ranking of all the teachers in the system. Teachers are told what percentage of top performers will receive rewards prior to the beginning of the measurement period.

The main advantage of a piece rate system is that it provides teachers with a clear target to be reached. In a properly designed piece rate system, the teacher's reward is dependent only on his or her own ability and effort. The teacher has no financial incentive to undermine the work of colleagues since the number of winners in this system is limitless.

One disadvantage of piece rate systems is that they make it difficult for the principal to keep salary expenditures at predetermined levels. If earned bonuses exceed projections, whether because of higher than expected effort or random fluctuations, administrators may face a budget shortfall. As mentioned, school districts have limited control over their ability to meet unexpected expenses so this problem provides a strong disincentive for the use of piece rate systems. One study of merit pay systems found that

almost 17 percent of districts had eliminated their merit pay program because the programs were too expensive (S. M. Johnson, 1986). More recently, a centrally mandated performance pay system in the United Kingdom was virtually eliminated after only a few years, largely due to complaints about the higher salary costs being borne by local schools under the program (Wragg, Haynes, Wragg, & Chamberlin, 2004).

Another disadvantage of piece rate systems is that teachers may collectively refuse to meet bonus criteria in an attempt to get the standard for rewards lowered. This is a common problem when piece rates are used in the factory setting (Lawler, 1990; Milgrom & Roberts, 1990; G. J. Miller, 1992; Whyte, 1955).

Tournaments avoid both of the problems mentioned in the discussion of piece rates. A tournament allows the principal to determine the amount of incentive pay to be rewarded and set the cut off in the rankings so that it matches available funds. Tournaments also provide few incentives for voluntary work restrictions. There is no standard to lower; rewards are simply based on relative rankings. High performers have an incentive to convince lower performers to restrict their output so they can easily maintain their high relative rankings but lower performers have no financial incentive to agree to do so.

Tournaments may also protect agents, teachers in this case, from the effects of random shocks that affect the entire group (K. C. Brown et al., 1996; Sappington, 1991). For example, suppose that a testing company renorms the test used by a district to assess teacher outcomes and that it is now more difficult to achieve results above the national norm. In a tournament system, the same proportion of teachers is still eligible for rewards even if overall performance dips. In a piece rate system, the renorming would

make it more difficult for teachers to receive rewards through no fault of the teachers themselves.

However, tournaments provide a strong disincentive for cooperative behavior among coworkers (Drago & Garvey, 1998). This is a serious disadvantage in a profession such as teaching where cooperation and teamwork are highly valued attributes. Beyond the disincentive for cooperation, tournaments provide coworkers with an incentive to sabotage each other's work. Every teacher who feels that he or she might have a chance of earning a reward has a financial incentive to undermine the work of colleagues. The system is a zero-sum game designed to have winners and losers and few people like to lose.

Piece rate and tournament systems may be attractive to different types of people. Tournaments may appeal to people who enjoy competition while piece rates may attract those who value collegiality. Teaching has historically attracted people with a relatively collegial disposition (Lortie, 1975); this might change if the use of tournaments increases.

Individual- and Group-Based Reward Systems

Teachers can receive rewards based on their individual efforts or they can be rewarded for the efforts of a larger group, generally the school. In practice, group-based reward systems have generally been outcome-based systems but this does not have to be the case. Performance goals could be set for a group of teachers and rewards based on the group's attainment of those goals.

A major strength of individual rewards is that they provide high performers with a strong incentive to remain in teaching and low performers with a strong incentive to

leave. The impact of one's performance is not muted by that of colleagues; individuals are held financially accountable for their own teaching.

On the negative side, individual rewards do not provide financial incentives for helping colleagues or performing tasks such as hall duty that are necessary for the smooth functioning of the school but provide few individual benefits to the teacher. In fact, quite the reverse is true, because agents are financially better off if they focus only on directly rewarded tasks rather than those where benefits accrue to others, such as assisting novices (Posner, 2000).

In order for individual-based rewards to be possible, the principal must develop a scheme for allocating credit to individuals. In an activity such as teaching where everything from prior academic achievement to the discipline policies of a child's other teachers can affect both the individual teacher's ability to teach and his or her students' ability to learn, it is difficult to do this in a simple yet fair manner.

Group-based rewards avoid this problem by explicitly recognizing the team nature of school production. The school's teachers are rewarded for their collective effort. Collective results are often easier to measure and monitor than individual results, so group-based systems are generally less costly to administer than their individual-based counterparts. While group-based systems may lessen the measurement problems in an evaluation system, they do not eliminate them. Problems of reliability do not disappear (Milanowski, 1999), and problems of appropriate allocation of credit and blame are not entirely avoided with the new unit of analysis since the effects of the district, prior schools, parents, and community must still be separated from school effects.

Group rewards provide an incentive for teachers to help their colleagues since financial rewards are dependent upon the entire group's performance. They also provide an incentive for teachers to participate in activities that benefit the school as a whole even if the benefit to the individual teacher is small. While group rewards do not have the perverse incentives to undermine colleagues that are often embedded in individual reward systems, Malen (1999) cautions that group reward systems with perverse incentives for cheating or for gaming the system may not promote collegiality in expected ways. As she puts it, "Deception and deceit are not compelling rallying points for teacher collaboration. Rather, they may be sources of division and derision that become every bit as troublesome as the faculty strains that occurred under individual-based merit pay" (p. 389).

Unfortunately, group-based reward systems may also provide high performing teachers with incentives to leave low performing schools where they are often needed the most. An individual teacher has a limited ability to raise the group's average so all teachers would prefer to go to a high performing school. The teachers who are most likely to have the opportunity to do so are the high performers. Group-based reward systems may worsen the current, inequitable distribution of high quality teachers among schools.

Group-based systems provide an incentive for individuals to free ride on the efforts of colleagues. An individual teacher can put forth a minimal effort and still receive the financial reward as long as his or her colleagues refrain from the same behavior. On the other hand, if the teacher does not believe that his or her colleagues will refrain from free riding, that teacher still has no incentive to work hard since the free

riding of colleagues will prevent receipt of the reward. Either way, each individual has an incentive to put forth minimal effort. Agency theory would predict that higher quality workers would have an incentive to monitor the performance of their lower quality colleagues and encourage them to improve but empirical evidence is mixed (Prendergast, 1999; Welbourne & Gomez-Mejia, 1995).

Group-based systems also provide high quality teachers with few incentives to work to capacity since they will only receive a small portion of the reward for their effort; most of the reward will be distributed to other group members. A study of service representatives for a discount brokerage firm found that the introduction of a group reward system increased the productivity of low performance workers but the performance of high quality workers remained static or declined (Hansen, 1997).

Under a group-based system, high quality teachers may decide to leave teaching altogether and move to an industry with individual rewards (as long as they believe that the skills that make them a high quality teacher will transfer to other occupations). Low quality teachers will have an incentive to remain in teaching since they can receive a financial reward that is derived from the work of their colleagues. Group-based systems are also more likely to appeal to individuals who value collegiality while individual rewards may be more attractive to those with a more competitive nature.

Conclusion

There is no perfect compensation system for teachers. Incentive programs may change teacher behavior but their behavior may not change in the intended ways. Alternatives to the current compensation system often provide teachers with perverse incentives to respond in undesirable ways. These perverse incentives are not the result of

poorly designed alternatives; they are inherent in any compensation system where the agent has information not available to the principal, where there is a stochastic element to output, and where the principal cannot directly observe the agent's actions. All these conditions are present in teaching and provide teachers with opportunities to game the compensation system.

Pitfalls to performance-based systems include the difficulty of specifying desirable behaviors, performance that complies with the letter rather than the spirit of the performance goals, and the high cost of monitoring teacher behavior. Outcome-based systems fare no better. Specifications are still difficult to develop since policy-makers have multiple goals, teachers still have an incentive to comply with the letter rather than the spirit of goals, and monitoring costs are still higher than the cost of the current compensation system. Piece rate systems make it difficult to control costs and teachers may collectively restrict output but tournaments sabotage cooperation. Individual incentive systems destroy collegiality but group incentives encourage free riding. All the alternatives will tend to attract and retain teachers who are different than the ones who find the current system appealing but it is not entirely clear that these will necessarily be better teachers. The details of the problems vary among the alternatives but the basic difficulty remains – it is impossible to design a compensation system that does not have undesirable consequences.

The fact that alternatives to the current system are flawed does not imply that bureaucratic compensation is desirable. It too has its drawbacks. The most serious of these are that it does not provide teachers with a financial incentive to maximize their effort and that it may discourage desirable candidates from selecting and remaining in

teaching. Many teachers, administrators, and policy makers are comfortable with this system since its use is so prevalent but maintenance of the status quo only makes sense if the status quo is working tolerably well and there are those who would argue that it is not.

Agency theory allows us to consider alternatives to the status quo in a cautious, even pessimistic, manner. While this theory, taken from the dismal science of economics, may not help us find the perfect system or to feel particularly optimistic about the potential for incentive systems to improve performance, it does allow policy makers to consider the current system and its alternatives with eyes wide open. By providing a clear picture of the strengths and the limitations of various options, an analysis grounded in agency theory helps policy makers choose teacher compensation systems that are compatible with the goals and the idiosyncrasies of their own situations.

The chapters that follow focus on one alternative compensation system, the Minneapolis Professional Pay Plan. Minneapolis Public Schools recently introduced this voluntary alternative to their traditional bureaucratic compensation system. Under Professional Pay, teachers do not receive salary credit for gaining experience; rather, they earn credit in a variety of ways, including participation in certain professional development activities and meeting school improvement goals. Within our agency framework, this design would lead us to expect particular responses. In Chapter 3, we will look at the history of Professional Pay, the shape it has presently taken, and our agency-derived expectations of its effect. Chapter 4 considers the likelihood that Minneapolis will be able to credibly commit to the policy and the effect that has on teacher behavior. Chapter 5 examines teachers' responses to Professional Pay and the

implications those responses have for improving teacher quality within the district while Chapter 6 concludes.

Chapter Two

Methods

In this chapter I describe and explain the research methods used in this study. First, the research design is discussed. The next three sections discuss instrument construction, sampling, and data collection methods, respectively. Following that, I discuss the data analysis techniques used in the interview and survey portions of the study as well as the techniques used to combine the two. I conclude with a discussion of several challenges I faced and the study's limitations.

Research Design

In this study, I hoped to begin unpacking the “black box” of teacher response to alternative compensation systems. I concentrated on one particular alternative compensation policy, the Minneapolis Professional Pay Plan, trying to gain a better understanding of teachers' responses and the underlying reasons. Once I had established this goal, I took a pragmatic approach to research design, considering which research design would provide the greatest opportunity to answer my particular research questions, rather than becoming bogged down in disputes over the general superiority of specific designs (R. B. Johnson & Onwuegbuzie, 2004).

I chose a mixed method study. In a mixed method study, the researcher uses both qualitative and quantitative methods and inferential processes are both inductive and deductive (Tashakkori & Teddlie, 1998). I drew on two main sources of data: interviews and a survey. The choice of a combination of qualitative and quantitative data collection methods allowed me to build on the strengths of each. As Miles and Huberman (1994)

put it, “at bottom, we have to face the fact that numbers and words are *both* needed if we are to understand the world” (p. 40).

The interviews allowed me to tap into respondents’ contextually embedded perspectives and ask more nuanced questions about details. Respondents were able to use their own language to explain their concepts of the policy and their responses to it. The open-ended nature of the questions also provided me with opportunities to be surprised. Respondents were not limited to a list of likely responses or those predicted by theory; indeed, the participants often nominated factors I had not previously considered.

The surveys enhanced the generalizability of my interview data beyond the small subset of teachers with whom I spoke. In addition, the highly structured nature of the survey allowed me to systematically measure potentially relevant factors.

I used both inductive and deductive inferential processes, moving inductively from my observations to theory, deductively from theory to predictions, and then returning to observational data as a means of testing my predictions. By repeatedly moving through this cycle – both within and across each type of data – I hoped to elaborate upon existing theory in ways that remained true to respondents’ experiences.

This study is a single case study with multiple sites within the case. The use of a single case, Minneapolis, allowed me to develop a rich understanding of teachers’ responses to one particular policy, Professional Pay, and the district context within which those teachers work. Teachers do not respond to policy in a vacuum. They have at least some knowledge or beliefs about the history, political environment, and bureaucracy of their district. By limiting my study to one district, I was able to collect data independent

of the teachers about the system within which teachers made their response decisions and of the types of opportunities they have had to learn about the policy.

Within the case, I further limited my sampling to middle schools, for reasons conceptual and practical. I was planning to conduct interviews in three sites and hoped that I would be able to visit sites with varying levels of policy enrollment to determine how school contexts might shape enrollment. By remaining within one level of the system – middle schools – I would not have to try to disentangle the effect of school level from other differences in the school context, a nearly impossible task with only three schools in the interview sample. My other reason was more practical in nature. I would need to gain the trust of respondents quickly during my brief visits and my own middle school teaching experience provided me with an avenue to do so.

Instrument Development

Interview Protocol Development

Interviews were conducted using a structured interview protocol (see Appendix I). Structured instruments were used to minimize the collection of unnecessary data, reduce unintentional researcher bias, and allow for comparability across sites (M. B. Miles & Huberman, 1994). The teacher protocol included questions about the teacher's background, participation in and assessment of Professional Pay, relationship with colleagues and the school principal, and past experiences with central office policies and personnel. Before writing the protocol, I developed a series of testable hypotheses that were consistent with agency theory. Next, I examined the findings of previous compensation researchers in the K-12 and other sectors. This second step allowed me to nominate additional factors, such as understanding, that would not generally be

considered critical to an agency analysis but that might affect teachers' responses. I then developed a series of questions that would allow me to test my hypotheses. For example, teachers were asked about previous interactions with central office personnel since the credible commitment literature indicated that those experiences might affect teachers' policy perceptions.

Once I had developed my initial interview protocols, I piloted the instrument with two former teachers, one of whom had previously participated in a merit pay program. This allowed me to improve the instrument's clarity and to check the interview length (this was of particular concern since most interviews would need to be completed within a teacher's 45 minute break period). The instrument was modified based on the pilot. Following that, I conducted interviews at my first school site, Washington Middle School.²

While the instrument worked reasonably well during those interviews, when I returned from that site visit, I met with a faculty advisor and debriefed about the strengths and limitations of the protocol, reflecting on what questions needed additional prompts, and what questions produced little helpful information. Based on that analysis, I made additional improvements before the next set of interviews. In a few cases, I changed the language used in a question so that it was more similar to the language used by my initial respondents. In other cases, I took advantage of the insights gained from my initial analysis of the first round of interviews to probe some areas, such as current professional development activities, more deeply while reducing the emphasis on other, less promising areas.

² All school names are pseudonyms.

I also developed structured interview protocols for use when interviewing school principals and district implementers (see Appendix I). The school principal interviews provided information about whether teachers' perceptions were consistent with the school principal's. They also provided me with additional information about the school and district environment. District implementer interviews helped me understand the district's political and institutional environment, as well as policy particulars. District implementers were asked about the current policy as well as its history and future. They were also asked about their perceptions of its effect, as well as about the effects of state and local actors on the district environment.

Survey Development

The survey instrument was designed after I completed the interviews and had performed my initial analysis (see Appendix I). This provided me with a set of conceptual ideas, gleaned from the interviews, that could be incorporated into the survey (M. B. Miles & Huberman, 1984). As a result, I had three sources to draw from when designing the survey: agency theory predictions, the findings of previous compensation researchers, and my own initial findings. Based on these sources, I again developed a series of testable hypotheses.

Next, I developed a series of survey items to test my hypotheses. When doing so, I tried to match my items to those used by previous researchers whenever possible. For example, I was able to use items in the Department of Education's Schools and Staffing Survey (SASS) to determine respondents' perceptions of the school administrator. Using this approach, rather than creating an entirely new set of items, had two advantages. The first is that the items had already been field tested and found to provide appropriate

measures of the underlying construct of interest. The second is that using the same items as other researchers improves the usefulness of the full body of survey work, allowing for later comparisons of responses across different teacher populations.

Survey items echoed the main sections of the interview protocol. There were items about teachers' knowledge about and opinion of Professional Pay, relationships with central office and school personnel, past experiences with district policies, and demographic information. Enrolled teachers were asked about their responses to Professional Pay. After developing a draft set of items, I mapped them back onto my testable hypotheses, in effect, doing a conceptual inventory. This helped ensure that survey items provided sufficient information to test each hypothesis, while allowing me to eliminate unnecessary or redundant items.

I conducted my surveys online, choosing this format for several reasons. The first is that the relative novelty of the online format may increase response rates (Dillman, 2000). The online format also eliminated the confusion generally caused by skipped sections in paper surveys. Respondents often become confused when they are asked to skip portions of a survey (Dillman, 2000), but the online survey automatically directs respondents to relevant sections based on previous responses. Other advantages are that the online format considerably lowers mailing and printing costs, and that data are immediately entered into a database, eliminating the arduous task of entering data.

One potential disadvantage of the online format is that respondents must be able to manage the technology. MPS teachers receive school and district information through e-mail on a regular basis and are expected to respond to e-mails from parents as well. Given this, it seemed unlikely that many potential respondents would be unable to open

the survey link and complete the survey. Nonetheless, a few teachers may have been discouraged. Another potential disadvantage is that computers are idiosyncratic and what appears to look like a well designed survey on one computer may be gibberish on another. To minimize this, I used an online survey publication tool, SurveyMonkey, which is designed to work on a variety of platforms, including older computers. In addition, I asked colleagues with a variety of computers and browsers to open the survey to make sure that they had no difficulty clicking on responses and moving from page to page.

The completed survey was piloted with six MPS teacher volunteers. Three were elementary teachers; three taught high school. Half were enrolled in Professional Pay, half not. I asked the teachers for feedback on both the ease of survey completion and the content and language of the items themselves. Based on their responses, a few minor changes were made.

Sampling

Interview Sampling Frame

During the two year data collection period, MPS operated eight middle schools. I conducted interviews in three of those schools. By limiting my study to three schools, rather than interviewing small numbers of teachers at a large number of schools, I was able to learn about the leadership and culture within each school. Whyte (1955) found that corporate and departmental culture strongly affected workers' motivation to respond to incentive pay. Other researchers have found that school culture plays a critical role in shaping school responses to reform (McLaughlin & Talbert, 2001). School culture varied

across my sites, helping me identify potential sources of variation that mediate response and understanding.

Since MPS preferences precluded random sampling (there were several schools where MPS restricted access) or sampling of a high, moderate, and low enrollment school (the district wanted me to speak with as many enrollees as possible and recommended against interviewing in low enrollment schools), I conducted interviews in schools with high, low, and moderate student achievement. I suspected that teachers³ in low achieving schools might view their ability to earn rewards differently than colleagues in high achieving schools and this design allowed me to look for those differences.

As previously noted, the first set of interviews took place at Washington Middle School during the spring of 2003. Washington is low achieving relative to other MPS middle schools and has an above average percentage of English Language Learners. A relatively high proportion of students qualify for free and reduced lunch at Washington as well. This site was selected based on Jay Ritterson's recommendation. Ritterson, the district employee responsible for the policy's implementation during the 2002-2003 school year, recommended Washington as it had an above average enrollment rate, allowing me to reach many enrollees in one location, and because he believed that Washington's teachers would be willing to cooperate with an outside researcher.

The following fall, interviews were conducted in two more middle schools, Maclaven and Pressley. Maclaven has above average student achievement while Pressley has moderate achievement (using district norms as the basis for comparison). Maclaven

³ All licensed school personnel are eligible for Professional Pay and are included in this study. The majority of these licensed personnel are teachers and the entire group will be referred to as teachers throughout in the interest of simplicity.

has an above average enrollment rate while Pressley is about average; again, this reflects district preferences. One school has an above average percentage of English Language Learners, while the other is below average. As was true of Washington, Maclaven and Pressley serve relatively high poverty populations. Only two district schools were relatively low in poverty and the district was not comfortable with my using either of them for interviews (one is included in the survey sample, however).

Survey Sampling Frame

I initially contacted seven out of eight MPS middle school principals to ask for permission to survey their teachers. The eighth principal was not contacted as the school had recently been reconstituted and the district did not want the staff disturbed. Five principals agreed, including the three principals in schools where interviews had been conducted. The two additional schools increased the sample's representativeness since one was a relatively low poverty school and both had below average enrollment rates. Within each school, all teachers were invited to participate in the survey.

One potential problem with the survey sampling frame is that the district and principals restricted the sample. If the principals who chose not to allow participation are systematically different than the principals who agreed to the study and if these differences affect teacher response to Professional Pay, this may skew results.

Data Collection

Interviewing

I spent three days in Washington, two and a half days in Pressley, and two days in Maclaven. Prior to my arrival, each school's principal announced my upcoming visit

during a staff meeting and made copies of the interview protocols and consent forms available.

The majority of the interviews were conducted in the teachers' lounge or a corner of the library. A few teachers wanted more privacy; those interviews were conducted in empty classrooms. In two cases, teachers asked me to conduct interviews in their classrooms while students were watching educational videos.

Teachers self-selected into the study, but I did encourage participation. Initially, teachers were suspicious of my intent, worrying that I was a "district mole" as one teacher put it – a researcher who had been planted by the district to gain confidential information – or that I would portray them as lazy or unintelligent. The fact that I was affiliated with an out-of-state university and had no ties to the district outside of my interest in Professional Pay helped assuage the first fear. My own experience as a middle school teacher helped with the second. Many teachers told me that they decided to talk to me because I was "one of them," rather than a hostile outsider. As I gained the trust of a few teachers, I asked them to encourage their colleagues to participate as well. Several teachers noted that they agreed to talk to me because of the encouragement they received from a trusted colleague. As a result, some groups within the school may have been more heavily sampled than others.

At Maclaven, the principal included the news of my arrival during morning announcements, telling teachers my location and asking enrollees to report for a brief meeting before school that morning, during which he encouraged them to speak with me. At Washington, teachers were reminded of my interest in interviewing them during morning announcements midway through my visit.

While I attempted to interview all interested teachers, there were several cases where I already had interviews scheduled during a teacher's available times. This was a particular problem at Pressley, since teachers there seemed particularly hesitant to agree to be interviewed early in my visit. When I returned home from the field visit, I asked Pressley's principal to forward an e-mail to the staff asking them to contact me if they were interested in being interviewed. Three teachers responded and I interviewed them over the telephone.

With the exception of one teacher who was uncomfortable with taping, all of the interviews were audio-taped. In addition, I took some handwritten notes during the interviews. I tried to keep these to a minimum as the teachers tended to focus on reading my notes, rather than the interview itself. Whenever there was a break between interviews, I would write down my immediate thoughts and impressions as well as any irregularities, such as the fire drill that interrupted one interview.

Forty-nine teachers were interviewed, twenty-three in the spring and the remainder in the fall. From 24 to 54 percent of the teachers in sampled schools agreed to be interviewed, for an average of 37 percent (Table 2.1). Some of this variation may be explained by the fact that I was able to spend the most time in the smallest of the three schools and that school had a higher proportion of teachers interviewed as a result.

Table 2.1: Sample Description and Professional Pay Enrollment – Interviews

School	Percentage of teachers interviewed in school	Percentage of teachers enrolled in school	Percentage of enrolled teachers in sample
Pressley	24 %	50 %	50 %
Maclaven	38 %	40 %	36 %
Washington	54 %	73 %	48 %
Sample Average	37 %	54 %	48 %

As mentioned above, I spent varying amounts of time in each school (three, two and a half, and two days) and the number of interviews in each school reflects those differences (23, 14, and 9 plus 3 telephone interviews). Quite a few teachers commented during later interviews that they agreed to talk to me because a colleague recommended that they do so. This word of mouth advertising resulted in the number of interviews per day increasing each day that I was in a school.

Another factor may have been the collegiality within each school. The number of interviews was largest in the school with the highest overall collegiality score (as measured by the survey) and lowest in the school with the lowest collegiality score. In less collegial schools, teachers may have spent less time interacting and valued each other's recommendations less, moderating the impact of any word of mouth advertising.

Within the schools where interviews were conducted, the percentage of teachers enrolled in Professional Pay varied from 40 to 73 percent, with an average enrollment rate of 54 percent (Table 2.1), but a slightly lower percentage, 48 percent, of interviewed teachers were enrolled. In two schools, school-wide enrollment rates and the enrollment rates of teachers who agreed to be interviewed were very similar. In the school with the

highest enrollment rate, non-enrollees were overrepresented in the interviews. This is somewhat surprising since we would expect enrollees to be more willing to discuss Professional Pay. I emphasized that I was interested in everyone's opinion, not just the opinions of enrollees, so I may have inadvertently introduced this bias.

As already noted, I also interviewed each school principal in his or her office, as well as the three person team responsible for the policy's implementation in one respondent's office suite.

Data Collection Through Surveying

My online survey was administered during the spring of 2004. As potential respondents may be hesitant to open e-mail from an unknown person (Dillman, 2000), I initially contacted teachers by having prenotification letters placed in their school mailboxes. This letter briefly described the project, provided each teacher with a unique logon ID to be used when they accessed the survey system, and included my e-mail address. I also informed teachers that respondents would be entered in a drawing for a \$50 Barnes and Noble gift certificate in an effort to boost my response rate.

Several days later, I sent each teacher a personalized e-mail reminding them of my letter and providing them with the survey link. Dillman (2000) recommends that the time between prenotification letters and the questionnaire be shortened from the normal one week to a two or three day period when electronic mediums are used; this might increase the likelihood that recipients will remember the letter, rather than deleting what appears to be an unsolicited e-mail. He also recommends sending e-mails from an individual address, rather than through a listserv to minimize confidentiality concerns and increase response rate. I followed these recommendations. Non-respondents were sent

two reminder e-mails, encouraging their participation and resending their logon IDs and the survey link.

A total of 90 usable surveys were returned. For medium effect sizes, this provided power of approximately .91 with an alpha of .05 (Faul & Erdfelder, 1992). For small effect sizes, the corresponding power is .16 (Faul & Erdfelder, 1992).⁴ Since a power of .80 is usually considered sufficient (J. Miles, 2004), this sample size allowed for detection of effects that are medium or greater.

From 30 to 50 percent of the teachers in sampled schools responded, with an average of 38 percent (Table 2.2). Response rates were higher in the schools where interviews were conducted. It seems likely that this is because teachers in these schools, whether they had participated in interviews or not, were somewhat familiar with the study, increasing their comfort with the survey.

Table 2.2: Sample Description and Professional Pay Enrollment – Surveys

School	Percentage of teachers surveyed in school	Percentage of teachers enrolled in school	Percentage of enrolled teachers in sample
Pressley	40 %	50 %	80 %
Maclaven	50 %	40 %	44 %
Washington	34 %	73 %	64 %
Phillips	30 %	34%	47%
Eason	32 %	20 %	12 %
Sample Average	38 %	41 %	48 %

⁴ Power is based on using a Chi-square contingency test to analyze difference among subgroups, such as participants and non-participants.

The Professional Pay enrollment rate in the schools where surveys were conducted was 41 percent and a slightly higher percentage of the teachers who responded to the survey, 48 percent, were enrolled. Within individual schools, the percentage of enrolled survey respondents was often quite different than the school-wide enrollment average, with three schools having a higher percentage of enrolled respondents and two having a lower percentage. There did not seem to be a particular pattern to this. Inclusion in the interview sample, school demographics, and the school-wide enrollment rate were all unrelated to the direction of survey sampling skew within each school.

Written Artifacts

While the interviews and surveys were my primary data sources, I also collected written artifacts, searching district and local union websites, district and union publications such as newsletters, and the local newspapers for policy-relevant documents. The implementation team also provided several documents, such as timelines, that had been created largely for use within district headquarters.

Data Analysis

Interview Analysis

The first step in my analysis was transcribing interviews and adding my field notes to the transcripts. Following that, I read the interviews, looking for patterns in responses. Through this inductive process, I developed a thematic conceptual matrix (M. B. Miles & Huberman, 1994) of perceived response factors. For example, teachers could respond to one perceived response factor, prior professional commitments, by adding additional rewarded commitments, by substituting rewarded ones for financially unrewarded commitments, or by choosing not to participate in rewarded activities at all.

The resulting matrix helped reduce and display the data, while also sending me in new conceptual directions. Several factors that appeared important to respondents (e.g., reluctance to substitute rewarded offerings for teachers' own professional development agendas) had not been highlighted in my initial framework. This sent me back to examine relevant literature, allowing me to better conceptualize my observations. After reviewing the relevant literature on teachers' professional development decisions, I began to conceptualize teachers' reluctance to trade their previous professional development agendas for the rewarded one in terms of professional autonomy.

I then returned to the transcripts, searching for evidence confirming or casting doubt upon my emerging conceptual matrix as well as my initial hypotheses. This deductive process helped me refine my developing framework while also highlighting the complicated nature of the responses. In many cases, for instance, a teacher's story supported or refuted my hypotheses but these simplified classifications were unsatisfying as I sought to understand the influence of and interactions among various factors. For example, almost half of interviewed teachers cited insufficient time as a factor in their lack of active participation. For many of these teachers, the effect of this perceived lack of time was exacerbated by a belief that rewarded offerings were not professionally worthwhile – teachers believed that they could not take on additional activities and were also unwilling to substitute activities. Looking at the percentage of teachers citing time while ignoring the overlap with those who had doubts about the value of rewarded activities could lead to ineffective policy recommendations. In sum, coding a response in one way or another reduced the response in ways that obscured important information.

To help with this dilemma, I sketched a series of small case studies highlighting the messy, complex nature of response. In these short cases, I constructed a narrative around each person's response, attempting to capture the array of factors that they described, as well as the logic of their decision-making process. For example in explaining Annette's case, I began by constructing a picture of her beliefs about teaching. Annette took her own professional development seriously and thought carefully about what opportunities were worthwhile and how to incorporate what she was learning into her practice. I then described Annette's impressions of the way Professional Pay did (and did not) fit into her vision of professional learning.

After writing the cases, I analyzed them for further insights, particularly relationships that I might not have seen in the larger data set. For example, Annette's story demonstrated that time pressures and professional autonomy can work together to depress response.

Another part of my analysis was the construction of a series of analytic memos. These memos were based on my conceptual matrix and helped flesh out my emerging analysis. In some cases, the memos supported my initial analysis while in others, my ideas changed as my understanding deepened. One early memo looked at the concerns teachers expressed during the pilot interviews. When I began the memo, I knew that issues of "fairness" had been mentioned repeatedly but I did not have a rigorous conception of what teachers meant by fair. As I began to describe the phenomenon and look for confirming and disconfirming evidence in the transcripts, I began to see that fairness, as used by respondents, was not one factor. Some teachers talked about the unfairness of teacher evaluations as a pay mechanism. These teachers were actually

expressing a lack of understanding since teacher evaluation is not a plan component. Other teachers talked about the possibility that promised rewards would never be paid – they had little short-term trust in the district. Others expressed fears that rewarded opportunities would be available to some teachers and not others – they had equity concerns. Writing the memo allowed me to move away from the ambiguity of fairness and develop a more clearly conceptualized set of factors.

While this narrative is linear, my analysis was not. I moved back and forth between the different procedures, picking up and sometimes discarding potentially fruitful ideas along the way. While many of the threads that ran through my interview analyses are included in this dissertation, some are not. The story of response I tell in this dissertation captures some of the complexity of the Professional Pay Plan, but other aspects will be highlighted in future writing.

As I moved through this iterative process, I tried to attend carefully to issues of validity – descriptive, interpretive, and theoretical (Maxwell, 1992). By taping, transcribing, and repeatedly listening to the interviews, I maximized the accuracy of my reporting, thereby increasing descriptive validity. Interpretive validity is strengthened when a researcher tries to base understanding on respondents' perspectives rather than imposing his or her own preconceived notions onto the situation. "Pure" induction is, of course, not possible, given the conceptual frames that human observers carry into all inquiry (Popper, 1963). I strengthened interpretive validity through my inductive reading of the data and by constantly returning to teachers' own accounts of events when trying to make sense of their stories. To strengthen theoretical validity, the researcher must consider whether her conceptual explanations would appear reasonable to members of the

community being studied. As Cusick (1983) notes, the field researcher should strive to “unravel and explain the complexity of the events so that others who share similar circumstances may find ways to express and understand their world” (p. 143). After conceptualizing my observations, I returned once again to the data to see if the ideas I was espousing echoed the ideas, if not the language, expressed by respondents. I also had the opportunity to discuss my emerging hypotheses with district implementers, checking to see whether my conceptualization made sense to them.

Survey Analysis

The surveys allowed me to systematically measure factors that appeared critical based on existing theory and my emerging understanding of the interview data. Before beginning my analysis, I developed item clusters related to constructs of interest. This was a relatively straightforward process, as I had mapped survey items onto my conceptual framework during the design phase. So, for example, teachers’ prior experiences with district policies were explored using four survey items related to agreement with, stability of, and consistency of district policies. Another cluster of nine items related to teachers’ understanding. In three cases, I wanted to construct a new variable to appropriately capture the contribution relevant items made to the construct of interest. I used a Rasch Rating Scale Model to develop scaled variables for Perception of Administrators, Perception of Colleagues, and Perception of District (see Appendix II for details).

I also had to address the question of weighting, since enrollees were slightly overrepresented among survey respondents. Statistical tests were performed using both weighted and unweighted data; results were not significantly different. Weighted results

are reported throughout the analysis, as these are generally considered more accurate reflections of the underlying population.

I analyzed responses both as an aggregated body of information and within particular groups – such as participants/nonparticipants – using appropriate statistical techniques. To begin my analysis, I ran a series of frequency distributions and crosstabs, providing an overview of teacher response and an emerging understanding of relationships among variables. I compared findings for various subgroups, such as enrolled/non-enrolled and individual schools. As with the interviews, patterns began to emerge which I tested for significance. I also used the survey data to test the robustness of my interview findings.

Putting It All Together

The interview and survey data complemented each other, with interview data providing more detail and complexity, and survey data enhancing generalizability and allowing statistical analysis. Twenty-four respondents completed both interviews and surveys. These were spread among the three schools in roughly equal numbers, with 10 not enrolled and the remaining 14 enrollees. This overlap provided me with the opportunity to check both the consistency of teachers' stories and the convergent validity of the interview and survey instruments. Stories were generally consistent and, when teachers' responses changed over time, these changes were in expected directions. For example, several teachers appeared to have learned more about the policy between the interview and the survey and these changes were more pronounced with the earlier interviews.

Both instruments appeared to be measuring similar underlying constructs. For example, my impression of policy understanding based on the interviews was similar to responses to understanding items in the survey. Convergent validity, on its own, does not imply content validity – it is possible that I was actually measuring something other than the construct of interest in both cases – but it does support using the survey data to generalize from interview findings as the same constructs appear to be measured in both cases.

Once I had established that both instruments seemed to be functioning in similar ways, I began integrating the data. I searched for places where the two methods yielded similar findings and those where linkages were weak. So, for example, I found that both methods produced similar findings about time pressure's effect on enrollment but that teacher reports of future plans for active participation were inconsistent between the two methods. Throughout this process, I kept returning to the data, seeking to disqualify hypotheses where support was weak. The written artifacts further rounded out the analysis. I compared the stories told by teachers, district personnel, and school principals to the evidence contained within the written artifacts. In many places, the written artifacts confirmed what I was told while, in others, they illuminated sources of confusion among respondents.

I used the three sources of data – surveys, interviews, and written artifacts – to check for consistency. Johnson and Onwuegbuzie (2004) note that, “If findings are corroborated across different approaches then greater confidence can be held in the singular conclusion; if the findings conflict then the researcher has greater knowledge and can modify interpretations and conclusions accordingly” (p. 19). When interview and

survey results converged, this triangulation strengthened my findings. When contradictions arose, I revisited my data and relevant literature to seek out more robust explanations

Challenges and Limitations

I faced several challenges during this study, the most problematic of which were selection bias and the limitations of self-reported data. There were teachers in each school who were unwilling to be interviewed. There also may have been interested teachers who were so heavily scheduled with parent and team conferences during my short visit that they were unable to find 45 free minutes to talk. If either of these groups differed from respondents across measured constructs, their omission introduced bias. As mentioned earlier, respondents often encouraged their colleagues to agree to interviews. There is evidence that different professional and social communities exist within schools (McLaughlin & Talbert, 2001) and my interviews probably overrepresented some of these communities while missing others.

There may be selection bias in the survey data as well. Nonrespondents may have differed in meaningful ways from respondents and the electronic medium used may have encouraged some teachers while intimidating their less technologically savvy colleagues. I did take steps to moderate the effect of selection bias, such as weighting survey data by enrollment status and performing separate analyses of various subgroups. These steps helped avoid disproportionate representation, at least along some obvious parameters.

Virtually all of the data used in this study was self-reported. Respondents may have deliberately misled me in some cases. Teachers may have been hesitant to attribute financial motivation to their actions and instead attributed those actions to a concern for

student welfare. This may be a particular problem in a profession such as teaching where there is normative pressure to place student welfare above other considerations (Lortie, 1975). In other cases, teachers may have believed they were telling me the truth but suffered from a lack of self-knowledge. For example, teachers may have honestly have believed that they were working extremely long hours and could not add another thing to their busy schedules when, in reality, work that went home with them each evening was rarely touched and they enjoyed a great deal of leisure time. To minimize these problems, I looked for evidence outside of my study supporting or refuting my findings.

My research design limited my study in two important ways. I chose to conduct a single case study, allowing for a thicker understanding of the forces at work within that case, but introducing limitations, among them that the lack of a comparison group leads to an absence of controls, the process of being studied may affect findings while the “comparison” group (the status quo) does not undergo study, the group being studied may differ from the status quo group for reasons that have nothing to do with the policy under study, and the group being studied may be responding to policies and contextual factors other than the ones being studied (Campbell & Stanley, 1966). Campbell (1975) suggests that his own earlier criticisms of single case studies may have been a bit strong and further suggests that these limitations can be minimized by considering the predictions generated by the theory as a body of evidence and retaining the theory only if most of these predictions prove to be true for most of the observed subjects (Campbell, 1975). If the researcher holds her theoretical expectations lightly, she will be less likely to lend credence only to that evidence which confirms her predictions. When assessing the

appropriateness of my theoretically grounded predictions, I remained open to surprises and actively looked for disconfirming evidence.

A further limitation is that the treatment under study is unique. Policy particulars are likely to condition responses in significant ways and these particulars vary widely across contexts, with Professional Pay looking very different from alternative compensation policies in places such as Denver, CO and North Carolina. In isolation, Professional Pay's uniqueness places tight constraints on what this study teaches us about teacher response but the study does not exist in isolation. Researchers are slowly developing a body of evidence about responses to various compensation policies which, while they individually share the limitations of my own work, begin to provide us with more generalizable insights when considered together.

Finally, the most significant limitation of the study is that I gathered no data concerning teacher effectiveness. Professional Pay's proponents hope that it will improve teacher practice, yet I was unable to test whether active participation influenced practice. While teachers who had participated in rewarded activities generally reported little change to their practice, self-reported data is problematic. It is possible that practice changed in ways that teachers were unable or unwilling to recognize and I am underestimating the policy's effect.

Another related problem is the policy's attractiveness to high quality teachers – a group that the district would like to retain. If active, enthusiastic participants tended to be better teachers, paying those teachers more and possibly increasing their retention rate makes sense, whether or not their practice changes as a result of rewarded activities. Unfortunately, I was unable to systematically assess teacher quality. Student

achievement data was not available at the teacher level and some of the school principals were uncomfortable evaluating teacher performance. Asking teachers about their colleagues was problematic as well, since teachers rarely observe each other's practice and questions about colleagues' performance might have undermined the trust that was critical to an effective interview. Extensive classroom observation of practice was beyond the scope of this study. In sum, further work will be needed to develop professionally responsible and respectful ways to obtain information on teacher performance before the policy's effect on practice and retention can be determined.

Chapter Three

A Portrait of Professional Pay

In this chapter, I describe the Minneapolis Professional Pay Plan. Like many policies, it is impossible to reduce Professional Pay to a static, monolithic representation. Before we can fully understand the policy, we first need to understand the history leading up to its adoption. The first section of this chapter will provide a brief history of the district's decision to offer Professional Pay. Following that, I describe the policy drawing on the information embedded in various policy representations, including the enabling legislation, district and union literature, the teacher's contract, newspaper articles, and discussions with the district team responsible for implementation. As is the case with all policies, "what" the policy "is" is neither simple nor straightforward, as these sources are not all consistent in content or emphasis. Finally, I locate the policy within the typology described in Chapter 1 and discuss the agency predictions arising from that placement.

Two major themes emerge from the resulting portrait of Professional Pay. The first theme is one of complexity. The policy is complicated and constantly evolving. Again, this is often the case with education policy – districts must try to satisfy a diverse, ever-changing group of stakeholders both within and outside of the district – but the complicated policies that result are difficult for teachers to understand. In addition, complexity and shifting parameters allow stakeholders to interpret the policy in varied ways, depending of their beliefs and areas of expertise. This discretion may increase the local relevance of the implemented policy but may also further increase teacher

confusion. The second theme relates to the district's recognition of the need to provide teachers with a mechanism to increase their technical capacity if teaching quality is to improve. The district understands that working harder may not be enough; teachers may also need to learn how to direct their efforts in ways that will help students.

A Brief History

Minneapolis is a large city of approximately 380,000 residents. St. Paul, a city of 280,000, directly abuts Minneapolis, making the urban area even larger. According to the U.S. Census Bureau, the median Minneapolis household income in 1999 was \$37,974 with approximately 67 percent of employed residents working in management, professional, sales, and office occupations. Almost 20 percent of Minneapolis' families with children live below the poverty line, with seven percent of families with children earning less than \$10,000. While most (85 percent) of the city's residents who are 25 years of age or older have graduated from high school, a much smaller percentage, 37 percent, have graduated from college. Nineteen percent of residents speak a language other than English at home and 14.5 percent of residents were born outside of the United States. In 2000, there were 73,117 children between the ages of five and 19 living in the city.

Minneapolis Public Schools (MPS) serves approximately 47,500 students, two-thirds of whom are eligible for free and reduced lunch and more than 11,000 of whom are English language learners. The system has approximately 8,300 employees, 4,603 of whom were teachers in the 2002-2003 school year. Per pupil spending was \$10,226 during 2002-2003 with the state providing \$7,439 of that amount (*Facts you should know*, 2003). In comparison, national per pupil spending was \$7,396 during the 2000-

2001 school year and Minnesota was close to the national average at \$7,645 (St. John, 2003). While spending is substantially above the state and national averages, large, urban districts with substantial percentages of English Language Learners and low income students do typically spend more than these averages. During the 2002-2003 school year, average spending for school districts with 40,000 to 99,999 students, 20.8 percent or greater of students eligible for free or reduced lunch, and a large central city location was \$8,533 (*Public school district finance peer search*, 2004). Lower spending districts in this peer group were often located in the South (El Paso, TX spent \$6,889 per student) while spending in demographically similar Midwestern districts was closer to Minneapolis' spending levels (Indianapolis, IN and Columbus, OH spent \$11,184 and \$9,607, respectively).

Average student achievement is low relative to other districts in the state; fewer than half of the district's students passed the mathematics, reading, or writing portions of the state test in contrast to a statewide average of 72 percent (White, 2003). Again, this pattern is typical of high poverty, urban districts. Recently, the NAEP mathematics and reading examinations were administered to eighth graders in ten urban districts. Average achievement in these districts was significantly below the national average. Almost half – 49 percent – of urban students were below basic in mathematics achievement compared to 33 percent of students nationally (*Results of the first NAEP trial urban district assessment in mathematics*, 2004). Reading results were similar; 41 percent of urban eighth graders were below basic in mathematics achievement compared to 28 percent of eighth graders nationally (*Results of the first NAEP trial urban district assessment in reading*, 2004).

Prior to the implementation of Professional Pay, all of the district's teachers were paid according to the steps and lanes schedule. This schedule, similar to the ones used in most school districts, rewards teachers for years of experience and the attainment of advanced degrees. Table 3.1 is a streamlined version of the salary schedule used for the 2001-2002 school year. The actual salary schedule has more steps (changes based on years of experience) and lanes (changes based on educational attainment) than this truncated version but the basic pattern holds – salaries increase with experience and educational attainment.

Table 3.1: Selected Salaries From the 2001-2002 Minneapolis Steps and Lanes Salary Schedule

Step (Years of Experience)	Lane (Educational Attainment)			
	BA	BA plus 15 credits	MA	MA plus 15 credits
1	\$29,521	\$30,179	\$32,051	\$32,997
3	\$32,567	\$33,033	\$35,550	\$36,566
5	\$36,066	\$36,579	\$39,002	\$40, 301
8	\$44,363	\$45,033	\$45,879	\$47,049
15	\$45,363	\$46,033	\$56,695	\$59,392
20	\$46,863	\$47,533	\$58,195	\$60,892
30	\$49,363	\$50,033	\$60,695	\$63,392

Around five years ago, a small group of district administrators and teachers began informally discussing the idea of offering an alternative salary schedule. While the concept appealed to the discussion group, one group member commented, “it was very

hard to get your hand around how to actually make it work.” Given the difficulty of turning abstract ideas into a concrete reality, attention to the issue waned for a while as other work responsibilities intervened.

By 1998, a small group of people committed to the idea of alternative compensation created the more formal Continuous Improvement Compensation Committee, or CIC, to work on the issue again. The key problem, in their eyes, was reframing the pay system to make it more “meaningful.” They hoped to reward and encourage excellence and were unsure whether the uniform salary schedule was an effective way to do so. CIC’s membership was fluid and, at times, included members of the Human Resource Department, the (now defunct) Policy and Planning Department, the PDP (teacher evaluation system) coordinator, the lead mentor, the superintendent, local union leadership, the union lobbyist, the union’s executive board, school administrators, local business leaders, community members, and classroom teachers. Various subcommittees spun off to look at particular issues related to alternative compensation and work continued for two years.

The Minneapolis Federation of Teachers (MFT) was involved in and supportive of CIC’s efforts from the beginning. The long-time president of the MFT, Louise Sundlin, participated in the AFT’s Alternative Compensation Task Force and the Teacher Union Reform Network (TURN). The Alternative Compensation Task Force arose in response to compensation discussions that were taking place nationally and at the state and local levels. Rather than simply react to initiatives once they arose, national AFT leadership decided to examine both the traditional uniform salary schedule and alternatives so that they could be proactive on the issue of alternative compensation. In

April, the AFT approved a resolution arising from the group's work stating that the AFT "believes it is time to explore viable, fair and educationally sound teacher compensation options that will raise salaries while contributing to efforts already under way to assure high-quality, well-prepared teachers for all students" (*Real incentives for professionals*, 2001).

TURN was started in 1998 with the goal of restructuring teachers' unions so that they are better able to increase student achievement. Twenty-one local unions are members of TURN, including Cincinnati and Denver, both of which have also been involved in alternative compensation policies. TURN emphasizes cooperative, rather than adversarial, relationships among the union, its teacher-members, and administrators (*Teacher Union Reform Network*). Both of these experiences, involvement in the Alternative Compensation Task Force and TURN, increased Ms. Sundlin's expertise in the area of alternative compensation and her willingness to work with the district on developing an alternative to steps and lanes. She was a willing and welcome collaborator as CIC worked to develop a plan.

Over time, CIC went through several name changes, including Standards-based Pay and Pay for Performance, and it was eventually decided that Professional Pay, a term borrowed from the AFT's Alternative Compensation Task force, was an appropriate moniker for the nascent policy.

Meanwhile, the governor and state legislature were becoming interested in alternative compensation as well. This was not entirely coincidental; the MFT's lobbyist had been discussing some of the district's ideas with state officials for some time. In 2000, Governor Ventura began promoting the idea of state funding for alternative

compensation and the state House K-12 Education Finance Committee began considering the issue. When legislation was drafted in the spring of 2001, legislators and the governor drew heavily on MPS and MFT personnel for guidance. The final statute does not mirror the district's plans perfectly. For example, MPS and MFT had not planned for the new policy to completely eliminate experience credit ('steps') while the legislation requires it to do so to be eligible for funding. Despite differences such as this, the legislation does provide a framework within which the district can easily work.

In 2001, the state legislature passed a bill to fund "restructured" teacher compensation systems within the state. The enabling legislation states,

A restructured teacher compensation system is established under subdivision 2 to provide incentives for teachers to improve their knowledge and skills and for school districts to recruit and retain highly qualified teachers, and to support teachers' roles in improving students' educational achievement. (Minnesota 2001 Statute 122a.413-415).

The legislature further requires that the system must not be based on years of service, must "encourage teachers' continuous improvement in content knowledge, pedagogy, and use of best practices," and that the district must "implement an objective evaluation system, including classroom observation, that is aligned with the district's or the site's educational improvement plan." Appendix III contains the full text of the relevant statutes.

In response to this funding opportunity, the district quickly introduced Professional Pay for the 2002-2003 school year. In order to qualify, a district had to demonstrate union and district collaboration, implement an alternative to steps and lanes

that met the criteria outlined above, and sign up at least 25 percent of the teacher bargaining unit for the new plan by July 3, 2002. Professional Pay easily met the first criteria but the remaining two presented a challenge. The district submitted an initial plan to the Minnesota Department of Education early in 2002 and had the full application ready in March. The submitted plan was loosely specified. For example, while the plan talked about paying teachers for participating in and demonstrating implementation of targeted professional development opportunities, neither the types of opportunities that would be offered nor the criteria for demonstration were clearly specified. Despite this lack of specificity, the state accepted it for funding. Only the 25 percent participation hurdle remained before the district qualified for the funds. The rather vague plan details were quickly presented to teachers and, as an incentive to participate, teachers who signed up were promised \$650 bridge payments as long as they joined the plan by June 30, 2002. Over fourteen hundred teachers, or about 30% of the district total, signed up by the deadline and the district received \$5.1 million in program funding for the 2001-2002 and 2002-2003 school years.

While Minneapolis was not the sole recipient of the state's restructured compensation funding, they did receive the largest share of it. The work that had been done within the district prior to the legislation's passage put them in a strong position to quickly pull together a successful application. In addition, the district's and union's informal input into the legislative design process helped ensure that the final legislation would be consistent with the type of alternative compensation that the district was already laying the groundwork for through CIC.

As we have seen, this policy developed out of years of discussion involving multiple stakeholders. Various parties including legislators, union officials, district representatives, and classroom teachers had input that helped shape the policy. We will see in the next section that the result is a policy that is both loosely specified and complex. We have also seen that this policy arose out of conversations centered on compensation. It was designed to use compensation as a tool to improve teacher quality. An assumption underlying the legislation is that money motivates good teachers to remain and inspires all teachers to improve. We shall see later in this chapter that not all stakeholders see compensation as the heart of the policy and, in Chapter 5, that teachers participate, or choose not to participate, in the policy for both financial and non-financial reasons.

Policy Representations: Written Artifacts

There is no single document that is *the* definitive source of information about Professional Pay. This description draws upon the enabling legislation, district literature, union literature, the 2003-2005 teachers' contract, and newspaper articles. Each text represents a different face of the policy. The enabling legislation provides boundaries that must be respected if funding is to continue. It provides a set of parameters within which MPS must work. The district and union literature provide information about the district's hopes and plans for Professional Pay; the contract outlines the district's obligations. The district and union would like this policy to provide teachers with multiple avenues to increased compensation and the literature they have produced reflects this. Some aspects of the policy that are outlined in the literature are operational while others provide glimpses of their long-term hopes. The contract is much more

conservative. The terms outlined in the contract provide information only about aspects which are guaranteed to remain in place for at least two years and that will not evolve during that period. Finally, the newspaper articles represent the public face of Professional Pay.

Setting the Boundaries: Enabling Legislation

As mentioned previously, MPS is able to offer Professional Pay because it is being funded through a state grant authorized by Minnesota 2001 Statute 122a. 413-415. In order to continue receiving funding, MPS must work within the parameters established by the legislation. As already noted, the legislation states that funded policies must provide teachers with incentives to improve their skills and must support teachers' efforts to improve student outcomes. The legislation goes on to specify particular criteria that must be met. In a complete break with steps and lanes, the new policy cannot include years of service as a salary determinant. The policy must encourage teachers to improve their content knowledge, pedagogical skills, and use of "best practices." In addition, it must include an "objective evaluation system, including classroom observation." The final criterion relevant to our discussion is that the policy must provide "career advancement options for teachers retaining primary roles in student instruction."

While these criteria provide the district with quite a bit of latitude, we will see in a moment that whether or not Professional Pay actually falls within the stated parameters is debatable. The current policy uses an action research requirement to evaluate teachers, rather than classroom observation. When this legislation was being crafted, scholars and consultants were focusing on linking teacher pay and classroom performance. Allan Odden and Carolyn Kelley, leading scholars in the field of alternative teacher

compensation, had released a book advocating knowledge- and skills-based pay that includes a classroom performance component (Odden & Kelley, 1997). This book draws upon academic research but is written in a style that is accessible to policy-makers as well as scholars. Through their affiliation with the Consortium for Policy Research in Education (CPRE), Odden, Kelley, and their colleagues were also offering reports, conferences, and consultations to policy-makers. Charlotte Danielson, a consultant affiliated with Educational Testing Service, was also promoting her “framework for teaching” as an evaluative tool for assessing teacher performance. In order to use the framework, a series of teacher behaviors are observed within the classroom setting. These assessments can then be used to evaluate teacher performance in an alternative compensation system. In addition to her consulting work with various school districts interested in alternative compensation, Danielson released a book and various supporting materials (Danielson, 1996). In this environment, it seems likely that Minnesota legislators wanted approved programs to base at least some portion of teacher pay on actual classroom observation, rather than relying on action research as a proxy for observation.

In addition, the legislation calls for career advancement options to be available yet the only career advancement option available for classroom teachers is the increased pay they receive. It is unclear whether this is all the legislature had in mind when they included this requirement; it seems likely that they were looking for a policy that included career ladders such as those that were briefly popular in the 1980s and are beginning to reappear in districts such as Denver, Colorado. The Milken Family Foundation was promoting their Teacher Advancement Program (TAP) when the

legislation was written. One of the five core principles underlying TAP is that teachers should be provided with multiple career paths, such as becoming mentor or master teachers, allowing teachers to increase their salaries while remaining in the classroom. As is true of CPRE, the Milken Family Foundation was promoting their ideas to policy-makers throughout the country when the legislature was considering alternative compensation.

One underlying premise of the legislation is the belief that teacher learning is a necessary condition for teachers' improvement. This may seem like a straightforward idea but it is one that is often ignored when compensation policy is designed. For example, policies that pay teachers for test scores assume that teachers are able to raise these scores if they are provided with sufficient incentive to do so. The assumption is often made that teachers are capable of both working harder and working smarter – they know what to do but it takes incentives, most often financial ones, to motivate them to do so.

This assumption—that agents are capable of increasing their production (in our case, that teachers can increase student learning)—is not limited to education policy; it is widespread. Corporate gainsharing and commission sales systems are based on the assumption that ability is present and motivation, particularly financial motivation, is both necessary and sufficient to increase production. The agency framework assumes that sufficient technical capacity exists and that, given adequate incentives, performance will improve. This may be a reasonable assumption in some cases, such as on an assembly line. Once the job is learned, it may be possible to speed up the line by paying employees on a piece goods basis. Applying this assumption to complex jobs, such as

teaching, is less reasonable. There are undoubtedly teachers who are simply lazy. These teachers may know how to improve student achievement and be choosing to do what is easy, rather than what they know will help students.

There is ample evidence, however, that some teachers lack professional knowledge; this lack of knowledge might compromise their ability to improve their teaching. Research on elementary mathematics teachers, for example, suggests that many teachers possess neither the content knowledge nor pedagogical skills to teach mathematics for understanding (Ball, 1990a; Ball, Lubienski, & Mewborn, 2001; Ma, 1999; Wilson, Floden, & Ferrini-Mundy, 2002). Approximately one-fifth of secondary science and social studies teachers have neither a major nor a minor in those subjects or related fields and the problem is even worse for secondary mathematics and English teachers (Ingersoll, 2001). Other scholars note the significant differences between teachers and their students. Sometimes called the “demographic divide,” many scholars argue that teachers need to be prepared with new knowledge of diversity and how to teach diverse student populations effectively (Cochran-Smith, 2004; Delpit, 1988; Ladson-Billings, 1999; Seiler, 2001). It seems unreasonable to expect these underqualified teachers to improve their teaching without providing them with opportunities to learn how to do so.

It appears that the legislature recognized this when they designed Minnesota 2001 Statute 122a. 413-415. While the legislation’s ultimate goal is to use financial incentives to improve student learning, the legislation does so by encouraging and rewarding teacher learning. Rather than rewarding teachers only when they improve student outcomes (a very difficult thing to measure), this policy rewards teachers for learning how to do so

and applying that learning. We shall see in the next section that MPS carries this one step further, by building a program that not only rewards teachers for taking steps to increase their technical capacity but that actually attempts to provide them with opportunities to do so.

A final point that should be noted is that, while the legislature recognized the role of teacher learning in raising teacher quality, this legislation was primarily about compensation. Increased compensation was assumed to be the key motivator for improvement. It does not appear that the legislation was intended to serve primarily as a mechanism for professional development; rather, the professional development was in place because increased capacity is a necessary precondition before new compensation monies can be allocated wisely.

Ideals and Hopes: District and Union Literature

MPS had been discussing an alternative compensation system for several years. The legislation discussed above allowed them to turn those ideas into reality. One way that the resulting policy is represented is in literature that the district and union make available to teachers and the public, both in print and online. A full portrait of the policy cannot be found by consulting one coherent, definitive document; rather, one must connect the dots between various documents released over time. As mentioned, once the enabling legislation was in place, a plan was quickly submitted to the state and approved. This plan was vague and continued to evolve even as it was being considered for approval.

Once MPS received tentative approval from the state, teachers needed to learn about the policy quickly since the district needed 25 percent participation to qualify for

funds. Informational meetings were held, particularly with union stewards, and literature was disseminated through mailings, monthly newsletters, and the union website. This section will discuss the policy as represented by this literature. For many teachers, written information would have been the most accessible way to learn about the policy. Some interviewed teachers mention that they had also been invited to or attended informational meetings; however, these took place outside of the regular school day and were infrequent so they were not a viable opportunity to learn about the policy for the majority of teachers. In addition, several teachers who had attended meetings complained during interviews that they had left the meetings confused. We shall see that this policy is quite complex; it is not surprising that teachers would have difficulty understanding it based on an after-school meeting. Even teachers who attend meetings will probably still need to refer to written documents for clarification.

The literature outlines both underlying ideas and specific components. While emphasis varies, the body of literature is internally consistent for the most part. The policy was changing as literature was published so details do change but the fundamental ideas and main components remain the same throughout. The policy is based on three fundamental ideas: (1) teachers should be rewarded for increasing their skill in improving student learning; (2) focused professional development can assist teachers in increasing their skills; and (3) no teacher should be penalized for choosing to participate in the voluntary plan (Ritterson, 2003).

Under the plan, teachers are rewarded in various ways. Some of these were operational during the 2002-2003 school year (the first year of the program), others became operational during the 2003-2004 school year (when components were written

into the new teacher's contract), and others are more long-term in nature. The rewards fall into four categories: results-based incentives, continuous improvement compensation, capacity building awards, and extended professional responsibility compensation.

Results-based incentives are based on district- and school-wide achievement (primarily measured in terms of test scores). District literature promised each participant \$1,000 if district goals were met. Most district goals were met during the 2002-2003 school year and participants will receive \$600. School-wide achievement awards vary, depending on the size of the school, and Professional Pay participants at each qualifying school vote on whether to distribute the funds as teacher bonuses or use them for another purpose.

Continuous improvement compensation pays teachers for college credits and degrees; however, the compensation formula is different than under the old "steps and lanes" schedule. In addition, district and union literature states that teachers must be able to demonstrate that the courses are relevant to their work. Teachers earn \$1,000 per ten college credits up to a maximum of 60 credits, \$2,000 for a masters (plus credits), \$4,000 for a second masters or education specialist degree (plus credits), and \$6,000 for a doctorate (plus credits). Teachers are paid \$3,000 for the attainment of National Board for Professional Teaching Standards (NBPTS) certification. Continuous improvement compensation also pays teachers \$1,000 for every three Minneapolis Public Schools University (MPSU) credits they earn. All of these amounts will be added to the teacher's base salary. In light of the problems some states are having with ongoing funding of NBPTS certified teachers (Salzer, 2003; *Teacher quality bulletin*, 2004), there was some

concern about adding rewards to a teacher's base, particularly the MPSU 1-2-3 rewards, but all of the written plan documentation treats these amounts as ongoing.

Comparing the two compensation alternatives, the steps and lanes schedule pays a teacher with one year of experience an additional \$2,825 annually for attainment of a master's degree and the credits associated with it (starting with a Bachelor's degree as the basis for comparison). If a teacher has five years of experience, he or she will earn an additional \$2,994 annually for the master's degree. Under Professional Pay, these teachers would have approximately \$5,000 added to their annual pay. This calculation assumes that the teacher earns 30 college credits while obtaining the master's degree. This is the minimum number of credits that a teacher must take at St. Thomas University (a local university) to obtain a master's degree in education. While teachers under Professional Pay no longer qualify for increases based on experience, or steps, teachers actually receive more for degree attainment under the new plan than they do with traditional lane changes.

One important difference between the two salary schedules is that district literature regarding advanced degrees mentions that "classes must be relevant to the teacher's work" (Ritterson, 2003) to qualify for Professional Pay rewards. The steps and lanes schedule does not include this restriction.

The \$3,000 teachers receive for attaining NBPTS certification is also larger than the amount paid under steps and lanes. Under steps and lanes, teachers who become NBPTS certified will move one lane to the right of their current placement. This amount varies but never exceeds \$2,000.

Additional pay for successful completion of MPSU courses is not available to teachers on steps and lanes.

MPSU courses are offered by the district at no cost to the teacher. To earn three credits, a teacher must attend 10 hours of MPSU professional development, demonstrate implementation of the strategies taught during the 10 hour training (videotaped lessons, etc.), and demonstrate professional reflection on the strategies (study groups, demonstration lesson, etc.). Teachers can take up to two MPSU courses per year and earn credit for up to 27 courses during their careers. These courses are generally referred to as MPSU 1-2-3. The district did not offer any MPSU 1-2-3 classes during 2002-2003 but plans to offer at least two in 2003-2004. ENVoY™, the first MPSU 1-2-3 class, is already underway with 183 participants. Math literacy will be offered this year as well and several other courses are in the planning stages.

The district team currently responsible for implementing Professional Pay (hereafter referred to as “the team”) hopes to eventually offer MPSU 1-2-3 credit for school based professional development as well. This would increase the options available to teachers and other eligible personnel and allow building personnel to concentrate on issues that are meaningful within that particular school’s context. Plans for this are still in the early stages and this is not mentioned in the literature.

Capacity building awards reward teachers for gaining skills that the district deems critical. Plan participants are paid stipends of \$500 for attending and implementing “critical skill set” professional development offerings. The 2002-2003 offering was “Improving Instruction through Analysis of the Data.” There will not be any critical skill sets offered during the 2003-2004 school year. According to the team,

they were told to concentrate only on MPSU course offerings this year because the district wanted to see how the implementation and professional reflection components of MPSU 1-2-3 worked in practice. There are also longer term plans to reimburse teachers for the costs associated with certification in high need areas, such as special education.

There is not a strong conceptual distinction between MPSU courses and critical skill sets. Both components center around professional development and both require teachers to demonstrate that they are implementing what they have learned. The difference between the two is a difference of degree, rather than kind. MPSU courses are longer in duration (ENVoY™ included five required class sessions while “Improving Instruction through Analysis of the Data” only required one class session) and require more extensive demonstration of implementation and reflection. Reflecting the greater demands of MPSU courses, teachers receive increases to their base salaries for successful completion of these courses; smaller, one-time stipends are used to reward teachers for critical skill set completion.

Extended professional responsibility compensation pays teachers for taking on responsibilities beyond their instructional duties. Defining responsibilities and reasonable compensation for this component has proven to be difficult, thus, it is not clear when this part of the plan will be fully implemented. The literature consistently includes this component but provides no detail as to amounts or qualifying responsibilities. During the interviews, some teachers expressed the belief that particular activities they participated in would be rewarded but there is nothing in the literature supporting that level of specificity. During 2004-2005, the district will begin establishing criteria to reward Math and Literacy Demonstration Teachers from the Learning

Partnership (a district initiative that is operated outside of Professional Pay) as a first step towards extended professional responsibility compensation. The team expressed concerns that, “you also have to be careful because you can create all this stuff and then if the money goes away and the district doesn’t build it in, then it [the compensation] stops... And if you do that to teachers, you’re going to be in trouble...[teachers will say,] ‘That’s fine, then I’m not doing the coordination anymore either.’” Right now, most of the responsibilities that would be rewarded are done on a volunteer basis. Moving to paid positions in an environment of unstable funding carries the risk that the district will be unable to find volunteers if funding is cut.

Given that this policy is constantly evolving, the literature is surprisingly consistent. One theme that appears throughout is that the policy is focused on teacher learning. While results-based incentives and extended professional responsibility compensation are explained in the literature, the literature mainly focuses on continuous improvement compensation and capacity building awards. These are mentioned more frequently and explained in far greater detail than the other two components. These are the components that both directly reward teacher learning and that provide teachers with additional opportunities to learn (through MPSU 1-2-3 courses and critical skill sets). The ultimate end result the district desires is increased student learning but the district recognizes that teacher learning is necessary for this to occur. Towards this end, the district both rewards this learning when it occurs and provides teachers with the means necessary to learn in the form of professional development opportunities.

Another idea that emerges from the district and union literature is that the policy is centered on compensation. As is true of the enabling legislation, the district recognizes

that teacher learning must take place before teacher quality can improve so the district has components in place to make learning opportunities available to teachers but this is, first and foremost, about paying teachers in new and, in the district's eyes, smarter ways. It is assumed that the promise of increased pay will motivate teachers but the district also recognizes that teacher learning may need to take place before this increased motivation can result in better teaching.

Another notable feature of the policy is its complexity. While this complexity provides teachers with multiple ways to increase both their professional skills and their compensation, it also provides them with multiple ways to become confused. Simplistic merit pay programs have a long history of failure and MPS tried to address this by designing a nuanced compensation plan that provides teachers with a variety of ways to increase both their pay and their teaching skills. Unfortunately, this comes with a price. The policy is confusing. We shall see in Chapter 5 that some teachers simply ignore the policy, professing not to understand it, while others harbor misconceptions that either turn them against the policy or give them false hope that they will be rewarded for activities that are, in fact, not rewarded.

The lack of a single definitive document describing the policy increases the potential for teacher confusion as well. Various documents describe and explain the policy and these documents do not refer teachers to a master document providing the "last word" on the policy. (In fact, no such document exists.) While these documents form a fairly consistent body of literature, plan features are highlighted more in some documents than others and timelines for implementation are rarely clear.

Tempering the Ideals: The 2003-2005 Teacher's Contract

At the time it was adopted, contract negotiations had begun for the 2003-2005 school years but the implementation timeline required the policy to be put into place during the 2002-2003 school year in order to receive funds. During the first round of interviews, teachers had very little information about the proposed contract. At the time of the second set of interviews and the survey, teachers were operating without a contract and the 2003-2005 contract was largely in its current form and awaiting ratification. The draft contract was readily available for teachers to review at that time.

The 2003-2005 Teacher's Contract (relevant sections of which are included in Appendix IV) outlines the district's contractual obligations. As we will see, these obligations are considerably fewer than those outlined in district and union literature.

Results-based incentives based on district- and school-wide achievement are not mentioned in the 2003-2005 Teacher's Contract. The district was able to pay these rewards without including them in previous contract language so their exclusion in the 2003-2005 contract language does not mean that the district will not pay these rewards, just that they are not contractually obligated to do so.

Continuous improvement compensation is included in the contract. Rewards for academic coursework, advanced degrees, NBPTS certification, and MPSU 1-2-3 credits will all be added to the teacher's base salary. The contract does not include the restriction that academic coursework must be relevant to the teacher's work in order to qualify for rewards. According to one team member, teachers rarely earn advanced degrees that are not relevant to their work so including this restriction in the contract was unnecessary at this time.

Capacity building awards are also not mentioned in the contract. As with results-based incentives, this allows the district to offer these rewards but does not obligate them to do so. Critical skill sets and reimbursement of the costs associated with certification in high need areas are not mentioned in the contract. The absence of language regarding capacity building awards does not mean that they cannot be rewarded. According to the team responsible for implementing professional pay, the district has paid these rewards through the use of memorandums in the past and plans to continue to do so in the future.

The same is true of extended professional responsibility compensation. While not included in the 2004-2005 contract, the team responsible for implementing Professional Pay plans to implement extended professional responsibility compensation during this contract period. At a minimum, they hope to reward Math and Literacy Demonstration Teachers from the Learning Partnership and PDP (teacher evaluation system) coordinators during the current contract period.

The contract also establishes a beginning salary for teachers who sign up for Professional Pay that is equal to their current salary under steps and lanes. Any additional monies earned will be in addition to this beginning salary.

If the program is discontinued, teachers are to receive the higher of their final Professional Pay salary or the step and lane salary corresponding to their education and experience at the time of discontinuation.

A teacher who looked at the contract to learn about the policy would come away with a very different view than someone who examined the literature discussed above but there is overlap between the two documents (Table 3.2). In both union and district literature and in the teacher's contract, it is obvious that Professional Pay differs

significantly from steps and lanes. Both sources make it clear that additional years of experience, the lynchpin of steps and lanes, are not rewarded. It is also clear from both sources that teachers will be rewarded for professional development. Rewards for the attainment of advanced degrees, NBPTS certification, and completion of MPSU 1-2-3 courses are mentioned in both sources.

Table 3.2: Comparing District and Union Literature to the 2003-2005 Teachers' Contract

Plan Component	District and Union Literature	2003-2005 Teachers' Contract
District- and school-wide achievement rewards	Included	Not mentioned
Compensation for college credits and degrees	Included – only rewarded if “relevant to the teacher’s work”	Included – rewards all credits and degrees
NBPTS certification	Included	Included
MPSU 1-2-3	Included	Included
Critical skill sets	Included	Not mentioned
Reimbursement of certification costs in high need areas	Included	Not mentioned
Extended professional responsibility	Included	Not mentioned
Provisions for plan discontinuation	Not mentioned	Included

There are significant differences between the district’s contractual obligations and the implied promises in district and union literature, however. A teacher looking at the contract would only learn that he or she would not earn step increases for experience, that

the magnitude of lane changes and the NBPTS certification award would change, and that MPSU 1-2-3 courses would be rewarded. The literature also discusses rewarding participants for meeting school and district goals, attending critical skill sets, and taking on extended professional responsibilities. The district is not contractually obligated to do any of these. Should financial difficulties or philosophical and political differences reduce Professional Pay's popularity and feasibility, the district can renege on the promises made in the literature without legal ramifications. The implementation team intends to keep the implied promises of the literature but, as will be discussed in Chapter 4, there may be forces at work within and outside the district making this difficult to do.

The possibility of plan discontinuation is not mentioned in any of the district or union literature that I obtained. In contrast, the contract is quite specific about the impact that a discontinuation decision would have on an individual teacher's pay. This difference may have arisen because both the district and union are interested in the program's success. They may feel that mentioning the possibility of plan discontinuation in informational literature will dissuade prospective participants. Teachers often see policies come and go; bringing the possibility of plan discontinuation to their attention may encourage them to dismiss Professional Pay as another briefly fashionable policy that can be safely ignored.

Another possibility is simply timing. The school year was well underway before the current teacher's contract was ratified. Most of the literature was produced prior to contract ratification and the district and union may have been exercising caution about making promises about plan discontinuation that would not find their way into the final contract. This explanation, while possible, is somewhat implausible given the district's

and union's willingness to produce documents discussing rewards such as extended professional responsibility awards that are not mentioned in the final contract.

With the exception of the discontinuation protections outlined in the contract, the contract often promises less than district and union literature. The contract outlines the district's obligations; the literature, its aspirations. While the district and union may fully intend to implement the program as it is presented in the literature, they do not have to do so. As we will see in chapter 4, this ability to renege on promises made in the literature may affect teacher's responses.

The omission of certain components from the contract is not necessarily unusual and may actually improve the policy's chances for success. The prohibitive costs of writing and enforcing a contract outlining every aspect of employment would make it undesirable to do so (Jensen, 1994) and, in almost all cases, is not even a possibility. In order to write a complete contract, both parties would have to be aware of all possible future situations and the appropriate response to those situations so that appropriate responses and rewards could be specified. Given that this is virtually never the case, contracts, particularly employment contracts, are normally incomplete (Milgrom & Roberts, 1992). The 2003-2005 Teacher's Contract is no exception; it would be impossible to fully specify all aspects of a teacher's job. Looking more specifically at an example related to Professional Pay, district personnel cannot specify which Professional Pay courses will be offered to teachers over the next few years as a part of their contractual obligation. Program popularity, the availability of trained facilitators, and shifting professional development needs all affect course offerings and are unknown at the time the contract is written.

In addition to the difficulty of fully specifying the employment contract, it may be undesirable to do so even if it was possible. Using memorandums, rather than contract language, to implement some policy components allows the district and the union to make modifications and improvements (Conley, Muncey, & Gould, 2002). Since there are few successful models of alternative compensation to follow, the ability to adapt and modify proposed policies may be particularly important to their long term success. By maintaining discretion over Professional Pay components, the district and union are able to improve the program over time.

This benefit must be weighed against the possibility that limited contractual obligations will lead teachers to conclude that the policy's promises will not be kept and that the policy itself may disappear. In an environment where teachers believe that the district will live up to informal, as well as contractual, obligations, this may not be a problem. This is not the case in MPS, however. We shall see in the next chapter that many MPS teachers are concerned about the district's ability and willingness to live up to the literature's promises and they are pessimistic about the policy's long-term persistence.

The differences between the teacher's contract and district and union literature may also foster confusion. Given the complexity of the policy, the potential for misunderstanding is high even when written literature is consistent. When a legal document, such as the teacher's contract, appears to be describing a truncated form of the policy, this will only increase misunderstanding. Teachers may be unsure of what to believe – the promises embedded in the literature or those in the contract.

One message that is consistent between the literature and the contract is the emphasis on teacher learning. Professional development is highlighted in the contract. Every component mentioned in the contract relates to teacher learning while components that are not as tightly coupled to professional development, such as extended professional responsibility and district- and school-wide achievement rewards, are not part of the contract. In addition, the contract explicitly states the importance of teacher learning in the section related to Professional Pay. The contract states, “Teachers are encouraged to continuously improve their professional skills and knowledge through coursework and other professional development activities which enhance their instructional skills and help them meet the needs of the students they teach.”

As is true of the enabling legislation and the district and union literature, the contract presents Professional Pay as a compensation policy. The focus in the contract is on the policy’s effect on teacher pay. While the links between MPSU1-2-3 courses and increased pay are outlined, the policy is placed within the contract sections relating to pay, rather than professional development. In addition, outlined obligations are financial in nature; for example, the district is required to offer a specified financial reward (\$1,000) for MPSU 1-2-3 course completion but they are not obligated to offer a minimum number of courses each year.

The Public Face: Newspaper Articles

A final written representation of the policy can be found in the news media. An analysis of the archives from the dominant local newspaper, the Star-Tribune, reveals scant coverage of the pay plan. During 2002, there were only two articles in the newspaper that primarily focused on Professional Pay. One appeared shortly before

teachers voted to approve the plan, the other shortly afterward. There are other articles that mention Professional Pay or the enabling state legislation, but these are primarily concerned with other issues and mention the policy only in passing.

During my site visits, all three schools had a copy of the current edition of the Star-Tribune in the teachers' lounge each day. Teachers often flipped through the paper during breaks, stopping to read articles of interest. This was the only newspaper I saw in the schools, although others may have been available. The articles that appear provide little information to assist teachers in evaluating Professional Pay. In the article appearing shortly after teachers voted to approve the plan, it is reported that Professional Pay "would allow them to collect bonuses and raises for acquiring and using certain skills believed to boost student achievement" (Shah, 2002). The article goes on to explain that the district and union will collaboratively decide what teacher practices and training would be rewarded. It is also noted that teachers will have to demonstrate that they are using what they have learned through classroom observations (this is not the case in the final plan). This is consistent with the policy's emphasis on teacher learning and with the other written artifacts discussed above but provides only vague information.

While the articles link the policy to teacher learning, thereby reinforcing that message, they do little to minimize any confusion that teachers might be experiencing. They are short, ignoring some aspects of the policy altogether while providing only an overview of the rest. In addition, one article notes that, "District leaders hope to implement the new system fully for *all* teachers in the next two years" (Shah, 2002, emphasis added). This statement is inconsistent with district and union assurances that the policy would remain voluntary and that there are no plans to eliminate steps and

lanes. There is nothing in the literature made available to teachers or in the contract to indicate that full participation is a goal. The article may lead some teachers to conclude that Professional Pay will lead to the elimination of steps and lanes. During the interviews, some teachers did have this misconception and, in all cases, they did not want to see this occur.

One idea resonating through all these written representations is that Professional Pay is first and foremost a compensation policy. From the name of the policy itself through the detailed explanations of the impact the policy will have on teacher pay, the primary focus is changing the way that teachers are compensated. While the district recognizes the need to increase technical capacity before teachers can respond to increased pay, compensation lies at the policy's core. We shall see in the next section that local implementers may disagree with this focus.

Policy Representations: The Local Implementers

Written policy artifacts are only one source of information about policies. Teachers also learn about policies from their own and colleagues' experiences and from school and district administrators. When data collection occurred for this study, this policy was so new that few teachers had been able to learn much from their colleagues' experiences. The limited experiences that teachers have had with the policy and shared with colleagues will be discussed in Chapter 5.

School administrators are largely uninvolved with the policy. None of the principals interviewed knew a great deal about the policy or felt that they had an active role to play in its enactment or success. The teachers agreed. None of the interviewed

teachers mentioned any role for school administrators in their participation decision or in the implementation of Professional Pay.

District personnel, however, play an active role in dissemination of policy information and its implementation. Our portrait of this policy is a charcoal outline at this point. We know what the boundaries of the policy are but not how it is enacted. It is the district implementers who breathe life into it and pull some parts of the policy into the sunlight while casting others in shadow.

Professional Pay is administered by Teacher and Instructional Services (TIS), not Human Resources. This placement highlights the district's early commitment to using Professional Pay as a tool for teacher growth rather than a merit pay emphasis. TIS is populated by individuals who are largely committed to teacher growth and professional development. Many of them have extensive experience as classroom teachers and teachers are not a group that has historically embraced merit pay. Unlike human resources managers, they are not trained as specialists in compensation or personnel management but are quite comfortable helping teachers develop their professional skills.

This TIS placement is consistent with the beliefs of previous district leadership. Previous leaders indicated that Professional Pay's core is making professional development available to teachers so that they can improve, not linking rewards to student performance. There is some evidence that the new interim district superintendent is much more results-oriented. As one respondent noted, "Our superintendent is afraid that if we take all this money from the state, from the taxpayers, and we don't show results, meaning all the test scores go way up, that we will have wasted the taxpayers' dollars and that then that will be shame on Minneapolis." Despite his more results-

oriented focus, the new superintendent has not attempted to change the makeup of the implementation team or the policy's administrative home within TIS.

The implementation team espouses preferences we might expect from personnel whose expertise is in teacher growth. As one team member stated, "Professional Pay is not really about that legislative model of paying teachers to do a certain thing. It's much more about setting up a system that allows teachers and encourages teachers to develop professionally. And the pay incentive itself is your way into that." The other team members substantively agreed with this emphasis on teacher growth and relative de-emphasis on compensation. While the governor and state legislature expressed interest in funding an alternative compensation system, the team is interested in funding high quality professional development. They see the additional compensation provided to teachers as a desirable, but not necessary, plan component.

One of the early leaders of Professional Pay was Jay Ritterson. In the year prior to implementation, Mr. Ritterson had been co-chair of the Professional Pay design team while on leave to the Minneapolis Federation of Teachers. When the district was ready to begin plan implementation, two facilitator positions, one full- and one half-time, were created within TIS. During the initial year of implementation, 2002-2003, Jay Ritterson was brought back into the district as a full-time Professional Pay facilitator. This position was not considered administrative; Mr. Ritterson was classified as a Teacher on Special Assignment or TOSA. While they report to the district office, rather than a school principal, TOSA's remain under the teacher's contract and see themselves as teachers, rather than administrators. Ronna Locketz, another TOSA, was given a half time position

assisting Mr. Ritterson with Professional Pay implementation. The remaining half of her time was spent as Lead Mentor for Career in Teaching.

After launching the plan in 2002-2003, Mr. Ritterson decided to return to the classroom. Ms. Locketz moved into the full-time facilitator position as his replacement. The district added a second half-time facilitator position and the two half-time positions were filled by Linda Trevorow and Lynn Nordgren. All three TOSA's involved in implementation have strong ties to teacher professional development. Both Ms. Trevorow and Ms. Nordgren work on Professional Pay half-time and work on issues related to teacher professional development during the other half of their time.

The team envisions Professional Pay as a way to establish a system that allows and encourages teachers to develop professionally. They are focused on teacher professionalism and teacher growth; the compensation attached to the professional development opportunities is secondary. As one team member noted, "If money becomes the core, then we'll lose on this." They envision Professional Pay as one policy within a larger framework designed to provide coherent professional development within MPS. One team member said that, "Our idea is to embed it in the whole." The whole is the district-wide system of supports and training to encourage teachers to develop as professionals. In other words, the plan is not just a way to pay teachers in innovative ways. The team sees the plan's core as professional development; the teacher compensation money, while desirable, is just the mechanism through which professional development will be offered and funded.

The team is concerned about making sure that the professional development offerings are of high quality and that instructors are well trained. They worry that, with

limited resources (discussed in Chapter 4), there may not be enough money to pay for high quality offerings and compensate teachers. The legislation does not address the issue of financing any aspects of the program other than teacher compensation and there is virtually no discretionary money in the district to fund professional development. The team is trying to find grant recipients within the district who are willing to work with them on this problem. One team member said, “We’ve been trying to get somebody that has a lot of money on a grant to budge, to make a decision.” Funding constraints will be discussed in more detail in Chapter 4 but the team’s concerns about funding high quality offerings are consistent with their emphasis on the policy as a vehicle for professional development, rather than a merit pay program.

While the preferences and backgrounds of policy implementers are always important, it may be a particularly salient issue in this case. As mentioned earlier, the legislation to fund Professional Pay was passed during 2001 and proposals needed to be submitted early in 2002 in order to qualify for funding. Mr. Ritterson notes that, at the time the plan was approved, it was “as yet only vaguely outlined” (Ritterson, 2003). The approved policy was partially underdetermined and not all clearly articulated. Professional Pay is based on a written policy that was still incomplete during initial implementation. This lack of specificity gave plan implementers, in collaboration with district and union personnel, quite a bit of latitude when fleshing out plan details.

Another factor increasing implementer discretion in this case is the complex nature of the plan. It is difficult for casual observers to fully understand it. One team member recalled that, “Our previous superintendent, sitting at the table all last year..., was having difficulty understanding all of the components.” By all accounts, the

previous superintendent was interested in Professional Pay and was attentive during discussions. Despite her efforts, she was finding it difficult to remember and understand all the details of this complicated policy without investing large amounts of time in it – time that she simply didn't have. In this situation, her only options were to spend a great deal of time on Professional Pay or to trust that the implementers were behaving appropriately. Given that the first option was unworkable, she chose to trust the team.

Local implementers see this policy as one component of a district-wide professional development framework. Other stakeholders may see it differently – they may be more focused on compensation reform. Since crafting and implementation has been an iterative process, the enacted policy reflects both emphases. This policy is presented as a new compensation system but it both rewards teacher learning and provides a vehicle for new learning opportunities. The resulting policy is complex and subject to interpretation. When a policy trickles down to implementers, there is always room for interpretation but this may be particularly true when the policy is complicated. For example, various stakeholders interpreted Title I regulations in different ways during the initial years of implementation (Bailey & Mosher, 1968; Murphy, 1971; Peterson, Rabe, & Wong, 1986). These interpretations were often influenced by stakeholders' personal beliefs about the role of the federal government in education and by their personal areas of expertise. When Title I was originally written, restrictions on the use of funds were vague and subject to interpretation. Local implementers took advantage of this vagueness to implement the program in ways that were consistent with their beliefs and that made administration manageable given local expertise, or the lack thereof. Following this period and in response to varying local interpretation, the program's

regulatory requirements were considerably tightened and enforcement increased. We see something similar to this early history occurring in Minneapolis. The enabling legislation sets loose parameters for grant eligibility. The district and union administrations have designed a policy that (more or less) falls within the stated parameters but is also sensitive to local context and needs. The local implementation team has further interpreted the policy in ways that are compatible with their area of influence and expertise. The implementation team believes teacher learning is the key to improved student learning and, furthermore, their particular expertise is in professional development. As a result, they tend to interpret the policy in ways that focus on professional development, rather than compensation. It remains to be seen whether the legislature will limit district discretion through increased regulation and enforcement as the program matures; we will see in the next chapter that the long-term prospects for Professional Pay are somewhat dubious so it is unclear whether maturation will occur or if this policy, like so many education policies, will simply become a footnote in the district's history.

All stakeholders agree that this policy should grow, reward, and retain teachers in ways that will benefit students. They also agree that both professional growth and compensation are important mechanisms to reach this goal. They differ in the theory of action that they assume underlies this particular policy. The implementation team sees professional growth as the primary mechanism to improve teaching. The state legislation emphasizes the use of compensation as a mechanism to improve classroom teaching while recognizing the need for professional growth if this is to occur.

Both the district's CIC committee and the state legislature were motivated by a belief that changing the pay structures used to reward teachers could spur improvement. Their primary emphasis was on rewarding teachers for certain behaviors and outcomes and they hoped that money would motivate teachers to change their behavior in positive ways and encourage high performers to remain with the district.

While the implementation team would not disagree with this idea, the innovative pay structure is not their primary motivation for supporting the policy. They are motivated by a desire to make high quality professional development available to teachers. This is reflected in their concerns about finding the funds to develop quality offerings.

Professional Pay's placement within TIS reflects the district's desire to use the policy as a tool promoting teacher's professional growth. This may have been a savvy decision since the program's success in actually improving student achievement may well hinge on the quality of the professional development offerings. The reward structure itself, once established, requires little specialized knowledge to implement. The same is true of the district and school performance awards. These plan components are based on goals that are set at the district and school levels and administering them is straightforward. The MPSU 1-2-3 offerings, the heart of the program, are a different story. This component's success is very sensitive to the expertise of the team putting together the course offerings. The same is true of the critical skill sets. These are the components that require the most manpower to implement and the most specialized knowledge. TIS is the home of most of this knowledge within MPS. Having an

implementation team with expertise in professional development makes sense since this is where program administration requires the most specialized knowledge.

The placement within TIS also reinforces the message in the written artifacts that Professional Pay is focused on teacher learning. Interviewed teachers talk about calling TOSA's with curricular questions and for assistance with their own professional development. They associate Human Resources with compensation questions, not TIS, so the separation of the policy from Human Resources subtly deemphasizes its initial roots in compensation.

The placement within TIS embeds the policy in the existing district professional growth agenda. As discussed above, the implementation team hopes the policy will become part of the existing framework and make more high quality growth opportunities available to teachers. They downplay the compensation aspects of the policy. This stands in contrast to the written artifacts. While the literature, contract, and newspaper articles all talk about the policy's ties to teacher learning, they present it as a compensation policy, first and foremost. This is not the case with the implementation team. They are not particularly engaged in compensation and discuss Professional Pay solely in terms of teacher learning.

What is Professional Pay?

Professional Pay is not a static, well articulated program. It is still very much a work in process and this affects its implementation. As a vaguely formulated, evolving policy, it is subject to multiple interpretations. Stakeholders with varied preferences selectively interpret the policy's intent and the enacted policy is sometimes inconsistent with the written mandate. Since Professional Pay's enabling legislation, district and

union literature, and contractual obligations look somewhat different from each other in substance and emphasis, stakeholders can each support their own view by referring to the artifact that most closely mirrors their interpretations.

The different emphases found in various policy representations allows the policy to act like a hologram; what you see depends on what angle you approach it from. The legislation satisfies those who seek innovation, district and union literature highlights the opportunity for teachers to simultaneously increase their pay and their professional learning, the contract reassures those who worry the district may be promising too much by limiting its legal obligations, and the implementers see this as a way to encourage both teachers and the district to invest in teacher professional development.

Initial discussions at the state and district level focused on compensation as a tool to develop, reward, and retain good teachers. This was the framework that the legislature seems to have had in mind when they passed the enabling legislation and appropriated funds. The enacted policy is much more focused on professional development as a tool to grow and retain good teachers. Rewards are a secondary benefit, not the primary motivator, in the enacted policy. This can largely be explained by the policy's vague specifications and complexity and the room this leaves for interpretation. The implementation team has been able to shape this policy to serve their own and district professional development goals while satisfying state funders that compensation is being rethought as well.

The policy's complexity provides room for interpretation. Understanding its nuances is not a job for the casual observer. Mildly interested stakeholders may latch onto components that resonate for them while devoting little time to understanding the

whole. For example, the school and district performance awards are outcome driven while the MPSU 1-2-3 rewards are more developmental in nature. The current governor, a proponent of outcome driven rewards, might focus on the first component while the implementation team might focus on the second. When resources are allocated, some components might be more generously funded than others, depending on stakeholder preferences.

The implementation team focuses on the professional development components. While they administer the complete policy, most of their time and attention is devoted to components that are consistent with their beliefs about improving teaching. The teacher's contract supports them in this interpretation since the contractually specified components are all focused on professional development. There are two potential problems with this emphasis. The first is that the close ties between rewards and particular professional development offerings will only result in improved teaching if the professional development is of high quality. We shall see in Chapters 4 and 5 that there are forces working against implementers' plans to develop high quality offerings, among them limited resources for developing and implementing rewarded offerings.

Exacerbating that problem is a reward structure that encourages teachers to quickly move from one rewarded offering to another. Teachers need to make their own arrangements if they would like to continue the learning that begins when they attend a district course but Professional Pay has no incentives for sustained follow-up and may even provide teachers with a disincentive to do so. Teachers cannot increase their pay if they attend a course twice and there are no courses that are designed to build on skills learned in previous courses. The only way teachers can increase their pay is to

continuously take additional courses. Since professional development time is limited by the hours in a day if nothing else, a teacher must choose between spending time working with colleagues or alone on incorporating what was learned in a course into his or her practice (an activity that carries no financial rewards) and taking another course that introduces completely new material (a rewarded activity). This discourages teachers from becoming deeply engaged in any particular offering.

The second potential problem is one of sustainability. We will see in the next chapter that there are strong forces for change within the policy environment. There is personnel churn at the higher levels of district leadership and political forces that are pushing the state towards an emphasis on compensation based on student outcomes. The policy's complexity would allow for a changed emphasis – more money could be shifted to the results-based incentive part of the plan – but this might leave teachers who enrolled in a plan that appeared to emphasize professional development feeling angry or betrayed. This problem will be discussed in more detail in Chapter 4.

Complexity allows the policy to offer something for everyone and allows selective interpretation of its intent by stakeholders but it also increases the potential for confusion and misunderstandings among the teachers who are expected to respond in meaningful ways. We will see in Chapter 5 that both lack of understanding and misconceptions are common. Some teachers complain that they do not understand what the policy is asking them to do while others harbor misconceptions about the policy's intent and structure. Some teachers believe compensation is tied to test scores while others believe that participation on school committees is rewarded and still others think

that professional development is rewarded. All of these components are included in the policy yet none of these individual pieces provides a complete picture of the policy.

The confusion that follows from complexity may be exacerbated by the somewhat different messages embedded in the various written artifacts and the implementers' interpretations of those artifacts. When policy instruments such as the written artifacts discussed above are inconsistent, confusion often results. In a study of California mathematics reforms, it was found that the use of coherent instruments and consistent policy communication improved the chances that teachers understood the policy's underlying intent and would reform their teaching in desired ways (Cohen & Hill, 2001). The mathematics reforms proposed in California asked teachers to rethink their assumptions about what mathematics is and how it should be taught. When teachers received conflicting messages about the policy, they were more likely to misinterpret this ambitious goal as something more modest, such as increasing the use of manipulatives or adopting a new text. When messages were consistent, they appeared more likely to understand that the reforms entailed a radical restructuring of their mathematics instruction, rather than reducing the policy to a set of new tasks.

Minneapolis teachers are being asked to rethink the role of compensation in their professional lives but are receiving inconsistent messages about what this means. A district newsletter might emphasize the critical skill set offerings while a memo discusses eligibility for results-based incentives. District literature stresses the voluntary nature of participation while a newspaper article implies that the policy might replace the traditional salary schedule within two years. These varied messages can be quite

confusing to teachers who have little time to invest in learning about the policy and will further the confusion created by its complex nature.

Professional Pay remains a hologram. While primarily designed as a compensation policy, it can also be viewed as a vehicle for professional development. Past compensation policies attempting to increase teacher performance through the use of financial incentives were often unsuccessful when they failed to recognize the need to simultaneously increase teacher capacity. Recognizing this, MPS included a substantial mechanism to increase capacity in their alternative compensation system. This, in turn, resulted in an increasingly complex policy. While complexity is not an inherently negative characteristic, it does increase the potential for confusion. Teachers who are trying to find out about Professional Pay find that there are several components, each of which is individually somewhat complex, and that these are evolving over time. Exacerbating this problem is the fact that complex, evolving policies are subject to multiple interpretations. The state, district and union, popular press, and local implementers all appear to have slightly different interpretations of its details and intent. No one document or person appears to be the definitive authority on the policy and teachers may be left to wonder what they are being asked to do and what promises are really being made.

Predictions: How Might Teachers Respond?

As discussed in Chapter 1, agency theory allows us to make predictions regarding likely responses to particular compensation systems. For example, we saw that group-based rewards may inspire greater helping behaviors among colleagues but also provide an incentive for free riding while individual-based rewards would tend to have the

opposite effect. Placing Professional Pay within the typology presented in Chapter 1 will allow us to make testable predictions about teachers' likely responses. Reality is generally messier than theoretical representations and this is certainly the case here. The complex nature and varied representations of this policy make neat categorization difficult. Nevertheless, we can generally place plan components and the overall plan within the typology.

Agency theory tells us that teachers will weigh the financial benefits gained against the costs, primarily time and effort, of making the necessary changes. Since Professional Pay is voluntary, we would predict that teachers who do not feel that the benefits outweigh costs will remain on steps and lanes. We would also expect most enrolled teachers to actively participate, thereby earning rewards. If teachers do not plan to be active participants, they are financially better off remaining on steps and lanes, where they periodically receive automatic salary increases.⁵ While teachers who are on a "frozen" area of the steps and lanes schedule (more experienced teachers do not receive automatic annual increases) will not lose anything by enrolling, they are still unlikely to enroll because agents are generally risk averse. Professional Pay has no track record in MPS, so it would be considered a somewhat risky choice, discouraging enrollment among teachers expecting stagnant salaries under either policy.

Professional Pay primarily rewards individual teacher actions. The primary components – continuous improvement compensation (payment for advanced degrees, academic coursework, NBPTS certification, and successful completion of MPSU 1-2-3

⁵ We will ignore the district- and school-wide performance awards for the moment. While enrollees may automatically qualify for these rewards, we shall see in Chapter 5 that teachers often have little or no information about them.

offerings) and capacity building awards (successful completion of critical skill sets) – are based on individual teacher actions, rather than group participation. In addition, they are equally available to all teachers completing the component; teachers do not have to compete for a fixed number of rewards. The primary components are performance-based: teachers are evaluated based on their behavior rather than outcomes. While the requirement that teachers be successful in obtaining degrees and pass academic coursework introduces an element of outcome-based compensation into these offerings, they are primarily performance-based since the failure rate for these endeavors is low. There is a higher failure rate for NBPTS certification, but far fewer teachers participate in this activity than in academic coursework. While the action research requirements for MPSU 1-2-3 and critical skill sets were designed to be outcome measures, they largely serve as placeholders. Teachers simply have to demonstrate the ability to use what they have learned on one project, rather than show that they have incorporated new skills into their ongoing practice. The primary components would therefore be generally characterized as individual, piece rate, and performance-based.

The other operational component is the results-based incentive. This rewards school and district level attainment of specified outcomes. All MPS teachers who enroll in Professional Pay are eligible for these rewards. This component would be characterized as group, piece rate, and outcome-based.

The final component is extended professional responsibility compensation. Individuals are rewarded for their own extended professional responsibilities and are unaffected by colleagues' choices when rewards are determined, making this an individual reward, but the limited number of responsibilities to be rewarded when this

becomes operational will introduce a tournament element. For example, only a limited number of testing coordinators are named, even though many teachers contribute to the successful management of testing within the school. Should the district decide to reward testing coordinators, it is entirely possible that two teachers in a school will compete for the named position. It does not appear that the district intends to require that teachers demonstrate that they were effective in their extended responsibilities, but rather that they hold the position for one year. This lack of any measurement, whether of performance or outcomes, makes this a bureaucratic component. In summary, extended professional responsibility compensation is individual, tournament, and bureaucratic.

Overall, we would probably characterize Professional Pay as an individual, piece rate, and performance-based compensation system since continuous improvement compensation and capacity building awards provide teachers with the bulk of their opportunities to earn rewards and are emphasized both in available literature and by the implementation team. This characterization would be tempered by the group and outcome-based nature of the results-based incentive, particularly for teachers whose understanding of the policy emphasized this component. Since extended professional responsibility compensation is not emphasized in the literature or by the implementation team and was not an operational component when data was collected, this component probably had a minimal affect on teachers' perceptions.

As discussed in Chapter 1, we would expect an individual system to promote a high level of individual performance while discouraging teachers from helping colleagues. In addition, there is little incentive for a teacher to devote time to activities that benefit group performance. Since teachers have no incentive to work for the benefit

of the entire group or to help struggling colleagues, we would predict that collegiality would decline with the introduction of Professional Pay.

In addition to being largely individual, rewards also tend to be piece rate, rewarding every teacher who completes activities. There are no incentives for teachers to undermine colleagues' efforts since the number of "winners" under this system is limitless. To some degree, collaboration might even be encouraged, as it may be easier for teachers to complete the work required in an academic course or action research project if they work together. This may help to offset the disincentives for collegiality that are inherent in individual rewards.

Teachers do have an incentive under a piece rate system to work together to have the standards for rewards lowered. For example, groups of teachers might argue that the action research requirement for MPSU 1-2-3 rewards is onerous and should be eliminated. Because the policy is quite new and the majority of MPS teachers are not enrolled, we would not expect to see this happening yet.

The greatest problem with piece rate rewards is that the principal has little control over total salary expenditures. If large numbers of teachers choose to participate in rewarded activities, they must all be rewarded, not just the most successful ones in the group. We would predict that MPS might attempt to prevent this problem by limiting opportunities for teachers to participate in rewarded activities or, if salaries become too high, by eliminating Professional Pay. This chapter discussed the limitations the teacher's contract places on the district's obligation to offer rewarded activities and these limitations are consistent with our prediction. We would also predict that the actual offerings would be sparse and that the program might prove to be short-lived. Past

attempts at piece rate merit pay have often been eliminated as ever-increasing numbers of teachers qualified for rewards and salary expenses rose (S. M. Johnson, 1986; Wragg et al., 2004).

The bulk of rewarded activities are performance-based. Teachers are rewarded for participating in certain learning activities and we would expect participation in these activities to increase. At the same time, we would expect participation in non-rewarded activities to decrease since this would allow teachers to earn more without increasing their total effort levels. Teachers might substitute rewarded offerings for non-rewarded professional development activities or they might decrease the time they spend on activities such as after-school tutoring or serving on unrewarded school committees. The current system, with placeholders for outcome measures, does not provide any financial incentive for teachers to incorporate what they have learned into their teaching. Once the rewarded activity is completed, we would predict that teachers would quickly move on to another rewarded activity, largely ignoring what they have learned unless the new skills will allow them to decrease their overall effort.

Performance-based measures also provide the principal with an incentive to limit opportunities, just as piece rate measures do. If teachers participate in large numbers of rewarded offerings, their salaries will increase to financially and politically unsustainable levels. To prevent this, the principal has an incentive to limit the availability of rewarded opportunities and, as cost increases, to eliminate the program altogether.

In Chapter 4, I discuss Professional Pay from the principals' standpoint in greater detail, providing empirical evidence that generally supports our predictions regarding principal behavior. Professional Pay also provides teachers with incentives to change

their behavior. The bulk of incentives encourage teachers to focus on activities that benefit themselves, rather than the greater school community. They are also encouraged to participate in as many rewarded activities as possible in order to earn rewards and to substitute rewarded activities for non-rewarded ones. They have no financial incentive to incorporate the resulting learning into their practice and there is some disincentive, as doing so would take away from time that could be spent participating in another rewarded activity. In Chapter 5, we will examine teachers' responses to Professional Pay. We shall see that factors outside of customary agency analysis may be playing a large role in teachers' responses, limiting, but not eliminating, the usefulness of our theoretical predictions.

Chapter Four

Meaningful Change or a Flash in the Pan?

Credible Commitment and the Minneapolis Professional Pay Plan

This chapter examines the likelihood that Professional Pay will become a permanent fixture in Minneapolis Public Schools (MPS) and the implications this has for successful implementation. There are factors at work, such as shifting political priorities and personnel turnover at the top levels of district leadership, that make it unlikely that Professional Pay will persist in its current form. In addition, teacher's beliefs about the district's commitment to this policy are examined. If teachers believe a policy will not endure, they have little incentive to change their practice in ways that are consistent with the policy's long-term goals and are better off taking advantage of any short-term opportunities created by the policy while avoiding the often difficult work of meaningful long-term change. We will see that Minneapolis teachers are often aware of the district's inability to make a credible commitment and do not expect Professional Pay to be a long-term program.

Innovative compensation systems for teachers have rarely met with success. While there are many causes for the demise of these programs, one common reason is that financial and political support is not sustained over time. California promised teachers performance bonuses in 1999 but these bonuses were never paid. Iowa's statewide experiment in pay for performance died before it was ever born due to insufficient funding (Reid, 2003). Kentucky and Georgia are considering the elimination of annual bonuses to teachers with National Board Certification (Salzer, 2003; *Teacher*

quality bulletin, 2004). Philadelphia has discontinued its performance pay plan due to the program's high cost ("Big-city districts scrap reward-based systems of evaluating teachers," 2003). In 2000, the central government mandated a performance pay system for all 24,000 schools in the United Kingdom. In response to funding concerns at the local school level, the central government virtually eliminated the program in 2004 (Wragg et al., 2004). There are exceptions – despite the larger than expected price tag, North Carolina's governor and legislators continue to fund their teacher bonus program in an environment of fiscal shortfalls (Silberman, 2003) – but they are rare.

MPS may have difficulty continuing to offer Professional Pay and convincing teachers that Professional Pay will have staying power. Changing leadership at the state and local levels and tenuous funding make it unlikely that teachers will believe that the district has a sustained commitment to the program. Without this sustained commitment, teachers have limited financial incentives to do the hard work necessary to earn rewards.

While this chapter will look only at the Minneapolis case, it has implications for education policy more generally. The broader question that this chapter begins to examine is whether a public school district can credibly commit to policies that, in order to be effective, require a long term financial and political commitment. The answer to this question may very well be a resounding, "No." Education has a reputation for constant policy change; educational mandates come and go before it is really possible for meaningful change to take place (Cohen, 1988; Cuban, 1993; Tyack & Cuban, 1995).

Reforms initiated in the 1950s tended to focus on excellence and the need for American scientists and engineers to remain intellectually competitive with their Soviet counterparts (Cuban, 1993; Dow, 1991). During the 1960s, attention shifted to reforms

designed to improve the quality of education received by poor and minority children (Murphy, 1971). As reformers shifted their attention away from issues of excellence towards a focus on equality and access, many of the curricular mandates adopted during the 1950s were abandoned (Clowse, 1981; Dow, 1991). Teachers who had embraced these reforms and invested time in learning how to teach the new curriculums found themselves understanding the reforms just in time to see them replaced. The open classrooms created during the 1970s provide another example of the shifting nature of educational mandates. In an attempt to facilitate 'informal education,' large open spaces were created in many schools to allow students and teachers to observe and participate in activities across classroom boundaries. By the early 1980s, walls were beginning to reappear in many of these spaces as the luster of 'informal education' faded (Cuban, 1993).

Ideas in education come and go and each new wave is often accompanied by a set of mandates designed to move education in new directions. This shifting policy focus does not simply reflect an inability of educators to make up their minds; it may be a result of the political and institutional characteristics of public school districts. While this chapter will look only at MPS, the shifting political priorities and changes in leadership that affect this district are not unique – they are found in many school districts. This may make it very difficult for school districts to effectively enact policies that require a sustained commitment to change.

Credible Commitment: A Framework for Analysis

Hidden action, hidden information, and monitoring costs, discussed in Chapter 1, are not the only obstacles to effective use of incentives. A perceived lack of credible

commitment also makes it unlikely that an agent will respond in desired ways. As discussed in Chapter 1, the agency problem arises in the first place because the principal⁶ cannot be certain of the agent's effort level. Sometimes, the agent will not work very hard but, because of factors such as market conditions or luck, produces high output despite low effort. At other times, the agent will work extremely hard but circumstances will work against her and output will be low. We could avoid the agency problem altogether if we forced agents to reveal how hard they are capable of working and to work at efficient effort levels. The principal would not have to worry about the agent's effort level – the employment contract would ensure appropriate effort. We shall see in a moment that eliminating the agency problem would not eliminate all of the incentives for undesirable behavior; the principal has incentives to undermine the system through a lack of credible commitment even when the agent is working efficiently.

As long as we make a few heroic assumptions along the way, it is theoretically, if not practically, possible to develop a compensation system that forces agents to reveal how hard they are capable of working and to work at efficient effort levels. An incentive-compatible system forces agents to reveal formerly hidden information – how hard they are capable of working – by providing a strong financial incentive to do so. A joint forcing contract establishes a minimum output (equal to the expected output when the agent is working at efficient effort levels) which must be reached before the principal is obligated to pay the agent for her work. This forces agents to work at efficient effort levels, thereby eliminating the problem of hidden action.

⁶ As mentioned in Chapter 1, the agency theory “principal” is the entity with whom the agent enters into an employment contract.

A simple example will serve to illustrate how this scenario works. Our principal, Steve, owns a car dealership. Maria is one of Steve's salespeople. In a joint forcing contract, Maria will be paid only if her output is sufficient; otherwise, she will receive no compensation. Her compensation will be exactly equal to the minimum that she will accept to work at the desired effort level. Let us suppose that Maria is willing to work at the desired effort level for \$1,000 per month.⁷ Furthermore, assume that she is capable of selling ten cars each month if she works at the desired effort level. Steve does not have this information but he can use an incentive-compatible mechanism to discover it. We will assume that Steve only sells one type of car, the Zippy, and that the amount he pays the manufacturer for each Zippy is unknown to Maria. When interviewing Maria for the sales position, Steve tells her that she will be hired if the cost of her monthly salary plus the cost of the total number of Zippys she sells each month will leave him with a 15 percent profit. Maria has an incentive to tell Steve the truth about how many cars she can sell each month and exactly how much money she requires to do so (again, we assume that Maria actually knows this – all of these simplifying assumptions are a large part of the reason why this is possible from a theoretical, rather than practical, standpoint). If Maria overstates the required compensation or understates the number of cars she can sell in an average month, Steve may decide not to hire her because his profit margin will be insufficient. If Maria understates her compensation or promises to sell too many cars, she will not be receiving adequate rewards for her effort and would be better off working elsewhere. So Maria should be willing to reveal the truth – the system is incentive-compatible.

⁷ This amount would be determined by factors such as Maria's taste for work, her financial obligations, and alternative labor market opportunities.

Once Steve has determined that Maria is capable of selling ten cars each month and that she needs an incentive of \$1,000 to do so, he will need to design a joint forcing contract to force her to actually do so. Assume that she works at the desired effort level, she will sell ten cars 90 percent of the time; the remaining 10 percent of the time, poor market conditions will make her unable to sell ten cars. If Steve offers her \$1,111 per month as long as she sells 10 cars and \$0 if she sells fewer, Maria will make an average of \$1,000 per month if she works at the desired effort level.⁸ She is unlikely to accept this, however, since she has bills to pay each month that make her averse to the risk of receiving no compensation during some months. We shall assume that an extra \$200 will compensate her for this risk. Maria will thus be willing to accept a contract that pays her \$1,311 each month that she sells 10 cars and \$0 each month that she does not. The resulting contract will be Pareto efficient. This means that no partner in the exchange can be made better off without making at least one other individual worse off.

It is theoretically possible to design these kinds of contracts but we virtually never see them in practice. Our principal would have to be willing to spend a great deal of time and money ascertaining a reasonable output requirement for any typically complex job. In addition, the risk premium the principal would have to pay the agent to accept an all-or-nothing contract would probably be quite high. Agents who work strictly on commissions are almost always paid for each successful transaction. Agents working on commission can work less hard and still earn some money, which is problematic for the principal, but the agent is not forced to absorb all of the risk involved in the random element of output, saving the principal from prohibitively high risk premiums. Despite

⁸ $(\$1,111 \times .9) + (\$0 \times .1) = \sim \$1,000$

the impractical nature of the incentive-compatible joint forcing contract described above, we will assume that one exists for the moment to simplify our discussion of credible commitment.

We have assumed away the problems of hidden information, hidden action, and monitoring costs. To further simplify our story, we will also assume away the problem of multiple goals. In our above example, we assumed that all Steve cares about is the number of cars Maria sells. In reality, he would probably also care about her selling tactics since a “hard sell” might result in short term sales but hurt the prospects for long term business. He would also be upset if she attempted to steal customers from the other salespeople he hired.

Even under these idealized assumptions, the incentive system still provides an incentive for undesirable behavior but, in this case, the principal would be the one with an incentive to undermine the system. The root of the problem is the fact that Pareto efficient schemes are not budget balancing. That is, any incentive mechanism that is Pareto efficient will produce a residual profit or loss (G. J. Miller, 1992) because each agent must receive marginal returns equal to the last unit of effort expended. Problems arise when this residual is absorbed by the principal (or someone who can influence the principal’s behavior). The principal has an incentive to manipulate the incentive system to maximize the residual (or, in the case of schools, minimize salary costs) (G. J. Miller & Hammond, 1994). If the principal does not succumb to this temptation and appears unlikely to do so in the future, he or she is demonstrating a credible commitment.

In the above example, we noted that Steve requires a 15 percent profit margin. Maria is told this but she does not know what Steve must pay for each Zippy. Once

Maria has accepted employment and would have to incur both actual and psychological costs to look for another position, Steve has an incentive to tell Maria that the price of Zippys has increased (even if they have not) to see if he can get her to accept a slightly lower salary. If he can convince her to do so, the scheme is no longer Pareto efficient (Maria's well being has declined even though Steve's has increased) but Steve is individually better off because there is more residual available for him to absorb (his profit margin might increase to 18 percent).

If agents believe that the principal may manipulate the system to maximize the residual, all of the problems of hidden action and hidden information reappear. Agents will not trust the principal to honor the terms of their agreement. Once again, agents will have an incentive to shirk. If the principal and agent only interacted for one period and information about their interaction would not become known to others, neither party would have an incentive to behave in a trustworthy fashion – each would attempt to maximize their gain from the one-time employment transaction. While this does occasionally occur, principals and agents generally have multiple transactions with each other; they play repeated games. Even when the game is not repeated between that particular principal and agent, information about the principal's behavior (and, to a lesser extent, the agent's behavior) during that game is often available to future partners. It is only when a game is repeated that players *may* have an incentive to behave credibly.

The folk theorem tells us that, in a repeated games situation, there is more than one player strategy that can result in a sustainable equilibrium. While one possible equilibrium is credible behavior by both parties, that is not the only likely outcome (G. J. Miller, 1992). Any equilibrium that is better than the worst possible scenario is

sustainable, including principal reneging and the resulting breakdown of agent trust.

There are two factors that will increase the likelihood the principal will make a credible commitment to refrain from manipulating the incentive system: when external constraints such as legal restitution make it costly to renege on agreements and when the principal values a trustworthy reputation.

The principal is more likely to behave credibly when there are external constraints that force this behavior. External constraints are laws that are designed to “tie the king’s hands” (North & Weingast, 1989). For example, if the principal decides to renege on a negotiated labor contract, the agent may be able to successfully sue for damages. Laws signal the principal that a decision to renege on an agreement may prove costly and thus may serve as a signal to the agent that the principal is less likely to renege. However, while external constraints can encourage trustworthy behavior by the principal, they cannot guarantee it. If it were easy to observe and verify the agent’s actions and the principal’s response, the agency problem would not exist in the first place. External constraints, while helpful, cannot force credible behavior in a situation where there are incomplete contracts. There are aspects of employment contracts that are not specified in advance and legislation is of limited usefulness in these cases.

The second factor making the principal less likely to renege is when the principal values a trustworthy reputation and is concerned about maintaining a reputation as a desirable employer. Let us suppose that the principal pays the agent wages that are less than the value of the agent’s marginal product early in the agent’s career and pays wages that are above the value of the marginal product later in the agent’s career. This is a strategy that is used by some principals to induce higher levels of effort early in the

agent's career (thereby minimizing some of the typical agency problems). The principal has an incentive to promise higher pay late in the agent's career and then renege on the agreement. Doing so may not be in the principal's best interest, however, because the principal's reputation will be damaged. Future agents, aware of the damaged reputation, will refuse to enter into contracts that pay them less than their marginal value of production early in their careers. Exploitation of current agents may force the principal to pay a wage premium in order to entice future agents to accept employment (Kreps, 1990; Williamson, 1985). The principal will no longer have use of this tool to encourage higher effort levels and will be worse off, in the long run, than if the principal had not reneged on the initial agreement. Reputations, once damaged, are very difficult to rebuild, so any short-sighted renegeing on the part of the principal will have long term consequences for future transactions (Tirole, 1996).

Agents are aware of the presence of externally imposed constraints and of the principal's reputation. The former would be publicly available information and the latter is revealed by the trustworthiness (or lack of it) demonstrated by the principal in other interactions experienced or heard about by the agent. The only time that the agent is better off behaving in a trustworthy fashion is if the principal does so as well. The principal's credible behavior is a necessary, but not sufficient, condition for the agent to behave credibly.

In an idealized case, the principal is completely trustworthy and the agent recognizes this. This scenario maximizes the residuals available to the principal as long as the agent behaves credibly as well. As long as the agent recognizes the principal's trustworthiness, the agent has an incentive to behave credibly since the agent knows that

the rewards for doing so will be appropriate – that the he or she will receive marginal returns equal to the last unit of effort expended.

It has been argued that in a situation where the agent and principal can trust each other completely, a contract is not even required since it simply adds the unnecessary costs of designing, monitoring, and bonding the contract (reducing the residual by the amount of those costs) to a perfectly trustworthy relationship (Al-Najjar & Casadesus-Masanell, 2001). In the real world, trust is relative, not absolute, and some sort of contract is generally necessary even in a trusting relationship. In addition, this argument requires several heroic assumptions that must be met for the agent to be considered completely trustworthy. For trust in the principal to be a sufficient condition for credible behavior on the part of the agent, either the principal would have to be able to perfectly ascertain the agent's effort level (rendering the agency problem obsolete) or the principal would have to design a perfect incentive-compatible, joint forcing contract so that the agent was not tempted to shirk (which, as discussed above, is theoretically, but probably not practically, possible). This leaves us with credible commitment, once again, as a necessary but not sufficient condition for credible behavior on the part of the agent.

When credible commitment is considered as an aspect of agency theory, an historical analysis becomes necessary to make sensible predictions regarding agent responses. If the agent believes that trust in the principal will be rewarded, the agent will be more likely to behave credibly as well – we will be more likely to achieve a trust-honor equilibrium. The greater the agent's misgivings about the principal's trustworthiness, the less likely a rational agent will be to behave in a trustworthy manner. Since the agent's perception of the principal's trustworthiness is conditioned on previous

experiences, we must consider these previous experiences when predicting likely agent responses.

Another, and more intractable, problem is that principals in the public sector have limited power over actions that may affect their reputations. Public institutions do not control their own destinies. Bureaucrats in these institutions may spend years developing a reputation as a trustworthy principal by behaving in a credible manner and then find they are unable to honor commitments when their budgets are slashed by the legislature. Voters in a school district may freeze or roll back property taxes and district officials may be unable to honor commitments through no fault of their own. New state or federal mandates may be at odds with the promises that district administrators have made to their teachers and they may be forced to break those promises or face stiff sanctions. We will see that a well intentioned district may be unable to credibly commit. The problem is not a lack of good-hearted people; it may, to at least some degree, be an inescapable dilemma for public agencies.

This chapter looks at Professional Pay from the agent's perspective, rather than the principal's. The principal wants the agent to behave in certain ways but the agent also expects certain behaviors from the principal if the agent is to have an incentive to respond in those ways. The agent must believe that the principal will honor promises made and not change the rules in midcourse. We will see MPS may be unable to credibly commit to Professional Pay's continuation and that teachers are aware of these problems.

Normal Chaos: The District Context

It is very difficult for a public agency to demonstrate credible commitment and MPS is no exception. There are few external constraints forcing public agencies to honor their commitments and people within the agency often have limited control over the agency's reputation.

External constraints

Legally, MPS is only obligated to continue offering Professional Pay through the 2004-2005 school year. The 2003-2005 Teacher's Contract, ratified January, 2004, states that:

The standard salary schedules and Professional Pay Plan are a part of a teacher's continuing contract as outlined in this Agreement (Article I, Section C.1). Pending continued, adequate Minnesota State funding for the plan and beginning prior to June 30, 2005, the Union and the District shall renegotiate continuation of the Professional Pay Plan.

Should the district decide not to continue the plan, it can simply decide that the state funding, even if it still exists, is not 'adequate.' In this way, the district can legally renege on its promises to teachers.

For example, teachers are told that \$1,000 annual payments for the successful completion of MPSU 1-2-3 courses will be paid as long as the teacher chooses to remain in Professional Pay. Should the plan be eliminated, teachers will receive an altered payment stream. They will receive either their Professional Pay salary at the time of plan termination or be placed back on steps and lanes, whichever is higher. While this protects them in the short term, teachers will no longer have the ability to increase their

salaries by continuing to participate in rewarded activities if the plan is terminated.

Under the current contract, there is nothing to stop the district from freezing the pay of former participants until they gain enough additional years of experience or new academic degrees to make the salary due to them under steps and lanes equal the amount that they were earning under Professional Pay. In that case, the salary gains that teachers have made through plan participation will slowly disappear.

At the time of the interviews, the 2003-2005 contract was under negotiation. During the first set of interviews, there was great uncertainty about the new contract. At the time of the second set of interviews and the surveys, the proposed contract appeared likely to be ratified but this was not certain. In all cases, uncertainty existed and teachers did not know what would happen to their salaries if Professional Pay was eliminated. While they knew that Professional Pay was a part of the negotiation process and generally expected the payment amounts in the contract to match promised amounts (i.e., \$1,000 for successful completion of an MPSU 1-2-3 course), interviewed teachers did not seem to have any clear expectations about how their salaries would be affected if the plan was discontinued.

The short term of the district's contractual obligation is not the only aspect of the contract limiting the district's obligation to behave credibly. Another factor, discussed in Chapter 3, is the conservative nature of the contractual obligations. The district is not obligated to offer a minimum number of rewarded professional development opportunities each year and it is not contractually obligated to pay results-based incentives or extended professional responsibility compensation at all. While there is no indication that the district plans to do so, it could offer rewards only for advanced degrees

and NBPTS certification (albeit at a higher level than under steps and lanes) in any given year and still be within the parameters of the contract. Since teachers do not receive experience credit under Professional Pay, a given teacher could wind up making less under Professional Pay than under steps and lanes if this occurred. During the 2002-2003 school year when the first set of interviews took place, one critical skill set was offered (this is the component that has a one-time payment of \$500) and no MPSU 1-2-3 courses were offered (the \$1,000 reward from this component is added to a teacher's base salary). The following year when the second interviews and surveys took place, no critical skill sets were offered and one MPSU 1-2-3 course was offered. As we will see in Chapter 5, this very limited menu of offerings does not appeal to all enrolled teachers and some of them chose to forego rewards rather than participate in an activity they did not see as professionally worthwhile.

While the salary schedule for the traditional steps and lanes is also renegotiated at two year intervals, we shall see in the next section that reputational constraints may come into play here, increasing the district's credible commitment to maintaining that schedule.

Control over reputation: Changing players and unstable funding

Two factors make it very difficult for MPS to control its own reputation; a constantly changing set of decisionmakers within and outside the district and the district's limited control over its financial future.

MPS has experienced instability in the superintendency. During the initial stages of Professional Pay discussions, the district was led by a superintendent, Peter Hutchinson, who advocated the "new business model." One respondent explained that he

believed “it was his job to help and be collaborative” and that new ideas just “flew” in this environment.

As the district came closer to implementing Professional Pay, Hutchinson was replaced by Carol Johnson. According to the implementation team (the group of three district employees responsible for managing Professional Pay), Johnson was supportive but, by nature, she wanted to think carefully about every decision. Late in her tenure, eroding economic conditions resulted in district budget cuts. These cuts were unpopular and, according to some respondents, eroded some of the trust that had been created between the union and the district under Hutchinson’s leadership.

During her tenure, Johnson hired David Jennings as chief operating officer. Johnson left MPS shortly after I conducted the first set of interviews and Jennings was named interim superintendent. He was serving in that capacity when the second set of interviews and the surveys were conducted. Jennings’ background includes positions with the Greater Minneapolis Chamber of Commerce, the Minnesota Department of Commerce, and as a Minnesota legislator. It does not appear that he had any experience in educational administration prior to his position in Johnson’s administration. Some respondents indicated that management-union trust continues to erode under Jennings’ leadership.

In addition, Jennings may not share his predecessor’s goals. Previous leaders indicated that Professional Pay’s core objective is making professional development available to teachers, not linking rewards to performance. There is some evidence that Jennings is much more results-oriented. As one respondent from the second round of interviews notes, “Our superintendent is afraid that if we take all this money from the

state, from the taxpayers, and we don't show results, meaning all the test scores go way up, that we will have wasted the taxpayers' dollars and then that will be shame on Minneapolis." Respondents feel that Jennings would prefer a pay plan that tied compensation to outcomes, specifically test results, rather than the more process-oriented Professional Pay.

At the time of data collection, another superintendency shift was expected. Shortly after his appointment as interim superintendent, Jennings was selected by the school board as the new permanent superintendent. Following extensive community debate about both his credentials and the selection process itself, he resigned the permanent position two weeks after accepting it. He announced that he was no longer interested in the permanent position but would remain as interim superintendent until a replacement could be found. The school board can leave Jennings in the interim position for as long as three years; during the data collection period, it was not clear when a permanent replacement would be named.

It should be noted that another superintendency shift took place after the data were collected. Thandiwe Peebles, the former superintendent of the Cleveland Municipal School District, accepted the permanent superintendency post, replacing Jennings. Jennings has since left MPS altogether.

Other local personnel changes have affected support for Professional Pay as well. The former director of Policy and Planning (a department that no longer exists) was quite influential with the superintendent and actively supported Professional Pay. The former director of human resources was also very supportive and had participated in discussions from the beginning. Both of these men have left MPS. The human resource department

has experienced three leadership changes in the last few years. The shifting leadership makes it difficult to maintain Professional Pay support since each leader has his or her individual priorities and policy beliefs.

Professional Pay is housed within the Department of Teacher Instructional Services (TIS). The three people responsible for plan implementation report to the director of this department. Two of them are assigned to Professional Pay on a part-time basis and must oversee other programs as well. The TIS department has experienced the same personnel churn as the rest of the system: TIS currently has its sixth director in eight years. The style and priorities of these leaders has varied. Yet another new director of TIS was recently named and the department was awaiting her arrival at the time of the second round of interviews.

The constant turnover within MPS makes it very difficult to sustain local support for Professional Pay. Different leaders have different visions of Professional Pay and differing commitment levels. The implementation team cannot be certain that new personnel will remain in their positions long enough for it to be worth it to try to educate them about the plan. The implementation team must constantly reeducate district leadership, a frustrating task that consumes a great deal of their time.

Recently, there have been superintendency changes at the state level as well. In January, 2003, Governor Tim Pawlenty appointed Cheri Yecke as the new Minnesota Commissioner of Education. Yecke is seen as quite conservative and, according to one respondent, "now they have this vendetta about Minneapolis. They would just as soon not have us do pro pay." According to another respondent, the new commissioner is "from a very small town, Maple River, which is ultra conservative and all the people that she

works with are from Maple River, the committees and everything, so everything has turned back. Even the standards, they undid the [academic learning] standards and made them extremely conservative again.” Whether this characterization is entirely true or not, the perception at the local level is that support for Professional Pay has eroded within the Minnesota Department of Education as a result of the leadership change.

While teachers, administrators, and the implementation team did not appear to anticipate another turnover in the superintendency at the time of the interviews, another change has occurred since the data were collected. The Minnesota Senate failed to confirm Yecke’s appointment in May, 2004 and Alice Seagren was appointed to the post in July. According to the local press, Seagren has a “different style but same philosophy” as her predecessor (Pugmire, 2004).

Even if problems of changing local and state education leadership were overcome, the district might still find itself unable to credibly commit to the plan’s continuation. As mentioned earlier, Professional Pay is funded through a short-term state grant. The continuation of this funding depends on legislative action. Recent political shifts may decrease the chance for continued legislative and executive support.

Minnesota has been moving in a more politically conservative direction in recent years. The current governor, Pawlenty, is substantially more conservative than his predecessor, Jesse Ventura. Both leaders have been interested in educational issues but have had very different ideas about what works.

Ventura, Minnesota’s previous governor, was a vocal proponent of the statute that is currently funding Professional Pay. While he wanted to see teacher compensation tied to performance, he was relatively flexible about appropriate mechanisms to do so. When

crafting the statute's details, the state legislators at the time were receptive to input from the MPS and the Minneapolis Federation of Teachers. The union leadership has been very stable in Minneapolis and local union leaders and lobbyists have been able to develop sustained relationships with legislators and their staff. In addition, the collaborative, supportive relationship enjoyed by the district and the union further strengthened their ability to collectively influence legislative action. According to one respondent, "Minneapolis takes a really big lead on a lot of things and then other school districts may pick up on it or not but the state kind of looks to Minneapolis."

This situation has changed with Governor Pawlenty's election. Many respondents believe that the new governor would like to see teacher salaries based on test scores, an option that is unpalatable to many teachers. Pawlenty proposed a "super teacher" plan that would pay teachers with high student test scores in high poverty schools bonuses of up to \$40,000. He said that his proposal, "opens the door to the whole discussion about how we pay teachers," (Walsh, 2003) and his plan is centered on rewarding teachers for test scores, not for professional development. He told one reporter that while, "he understands that the Minneapolis schools cannot control the poverty of their families or the readiness of their new students to learn, focusing funding on results could have a dramatic effect" (Walsh, 2003).

Since the interviews took place, Pawlenty has retreated somewhat from his "super teacher" proposal due to a lack of legislative support and instead has initiated a "performance-based teacher pay system" that is being piloted during the 2004-2005 school year in three Minneapolis elementary schools and in the Waseca school district, a four school district in the Southern part of the state (Draper, 2004; Salisbury, 2004). The

new policy is being funded by a state grant and Minneapolis will receive \$2.6 million annually to fund the plan. This new policy is modeled after the TAP program being used in districts such as Denver and does not compensate teachers for participation in professional development activities and their application. It rewards teachers for test score gains within their school and within their classrooms and for receiving favorable evaluations of their teaching. In addition, teachers are rewarded for acting as mentors and teacher coaches. When discussing the new policy, Pawlenty noted that, "We want to move more toward a performance-pay plan, and this is a step in the right direction" (Draper, 2004).

The governor's displeasure with the current state of affairs at MPS does not seem to be limited to Professional Pay. The governor pointed to MPS when discussing districts that have "unacceptable outcomes" despite increased education funding (Walsh, 2003) and, according to respondents, does not support many of the district's efforts. One respondent believes, "we have a change in governor this last year and a change in some of the legislators and so now they're kind of looking at Minneapolis differently..., negatively. They think that we sucked all of the money out of education," leaving very little for other Minnesota districts. Another commented, "I don't think they wanted to give it [the grant money to fund Professional Pay] to us. I honestly don't think they wanted Minneapolis to have that money. I think that there is an attitude out there that Minneapolis gets everything." If the new state leadership does indeed view MPS as wasteful, this is likely to jeopardize continued state funding of the program. This is particularly true in the current economic environment; Minnesota, like most states, is struggling to balance its budget and looking for ways to cut costs

It would be very difficult for MPS to fund Professional Pay without assistance from the state. The district has already had to resort to large cuts as a result of their current budgetary shortfall. Things are unlikely to improve quickly. Unlike most districts, federal and state categorical grants and grants from private foundations are the single largest funding source in the MPS budget. The current economic downturn makes it unlikely that the size and availability of grants will increase in the short term. In addition, the nature of grant based funding makes it difficult to use categorical funds to support Professional Pay. These grants are from a variety of sources (state, various foundations, federal, etc.) each having different goals and spending restrictions. This makes it difficult for the district to fund unsupported initiatives under the best of circumstances. Professional Pay cannot be supported without funding above and beyond that needed to sustain steps and lanes. Two of the fundamental premises of the policy are that no teacher will make less under Professional Pay than he or she would have under steps and lanes and that the district will offer high quality professional development as part of the plan. In order to remain true to these promises, the district will have to spend money beyond that required by steps and lanes.

As mentioned in the previous section, reputational factors may increase teachers' perceptions of the district's credible commitment where the traditional steps and lanes salary schedule is concerned. School districts, including Minneapolis, have a long tradition of only minimal tinkering with steps and lanes. Salary levels and the size of increments may change somewhat but very few districts have ever abandoned steps and lanes altogether and most of these have reinstituted it after experimenting with alternatives. While MPS could abandon steps and lanes, its history of a commitment to

maintaining this schedule makes it less likely that teachers will worry about this possibility. In addition, the Minneapolis Federation of Teachers supports the maintenance of steps and lanes as an option for teachers. While the district could act unilaterally, it has a history of cooperation with the union that makes this unlikely.

MPS is trying to implement a policy that its target audience may already be dismissing. They are hoping that Professional Pay will encourage teachers to learn new skills, use these skills in the classroom, and then teach their colleagues as well. This is slow, hard work and teachers may not find the benefits of doing so to be worth the cost when the financial rewards for doing so are unlikely to outlive Professional Pay.

The next section will look at teacher's perceptions of the district's credible commitment. Depending on whether teachers are aware of the difficulty in sustaining this policy, they may respond in different ways. The opportunities to earn rewards under Professional Pay require hard work on the part of teachers but, in most cases, the rewards for putting in that hard work are added to the teacher's base salary for the life of the program. The perceived effort/reward ratio will be very different for a teacher who expects Professional Pay to be a short-lived policy than for a teacher who expects to reap rewards for the remainder of his or her MPS teaching career.

Wary and Worried: The Teacher Response

Teachers have serious doubts about the future of Professional Pay. Over half of interviewed teachers believe that the program will not survive much beyond the 2004-2005 school year. Fewer than 15 percent of interviewed teachers believe that the program will still be in place in several years and the remainder are unsure what to expect. Surveyed teachers are also generally pessimistic. When asked whether they

agreed that, “The district will still be offering Professional Pay in five years,” 39 percent of teachers generally agreed with the statement, and only two percent strongly agreed. Only 24 percent of teachers generally agreed that, “The state will continue to fund Professional Pay after the initial grant runs out,” and no respondents completely agreed with the statement. Twenty-three percent of teachers generally agreed that, “The district will continue funding Professional Pay after the initial state grant runs out,” and one respondent completely agreed with the statement. Looking at the funding statements together, only 27 percent of teachers generally or completely agreed with at least one statement.

In order to examine whether various factors affected teacher’s perceptions of credible commitment, I constructed contingency tables. Interviewed teachers are categorized by the completeness of their information about the program⁹ and their perceptions of the district’s credible commitment¹⁰ to Professional Pay. The resulting variables are subjective and the reader should note that I assigned values based on

⁹ The completeness of information variable was based on teachers’ responses to several questions. The first asked them to tell me what they knew about the program. Teachers often mentioned both elements that were part of Professional Pay and misconceptions about rewarded behaviors. In a set of prompts following this, I mentioned specific plan components and asked them if they were aware of these components and how they worked. Responses were categorized so that roughly half of respondents had more complete and accurate understanding than the average and roughly half had less.

¹⁰ The perception of credible commitment variable was also based on teachers’ responses. While talking about plan components and their opinions of and responses to Professional Pay, respondents sometimes volunteered their predictions about the district’s future behavior regarding the plan. After discussing Professional Pay for a while, teachers were specifically asked what they thought the plan would look like in a few years. This information was then combined to create a perceived credible commitment variable. A positive perception indicates that respondents believe the plan will persist and will not be altered in undesirable ways that hurt teachers. A negative perception indicates that respondents believe that the plan will be discontinued or will be changed in ways that the respondent found undesirable.

responses that were not always consistent or straightforward. The reader should also guard against assuming a constant scale. Two positive responses do not necessarily offset two negative responses – the positive responses may have been extremely enthusiastic while the negative responses may have been mildly negative. That said, the tables do provide one way to reduce and simplify the data into a more manageable form so that patterns can be observed.

Not surprisingly, the less teachers know about Professional Pay, the less likely they are to express a strong opinion about the district’s credible commitment to Professional Pay (Table 4.1). Relatively uninformed teachers are often unsure how current funding works or who is spearheading the program at the district and state levels. Several noted that, “I really haven’t given it much thought” so they felt unable to comment on the future.

Table 4.1: Completeness of Information and Perception of Credible Commitment Among Interviewed Teachers

Teacher’s Information	Perception of District’s Credible Commitment		
	Positive	Negative	Unsure
Below average	4%	52%	43%
Average	33%	67%	0%
Above average	18%	64%	18%
Total	13%	58%	29%

Surveyed teachers were asked whether seven statements about plan components were true or false in order to assess their knowledge. Teachers with five correct responses

are categorized as having average information while those with a smaller or larger number of correct responses are categorized as having below or above average information.¹¹ Teachers were also asked the degree to which they agreed with the two funding statements mentioned above; “The district will continue funding Professional Pay after the initial state grant runs out,” and “The state will continue funding Professional Pay after the initial grant runs out.” The four point Likert scale used for these items forced a choice; teachers could not select “unsure” as a response. Teachers who either generally or completely agreed with *either* of the first two statements are characterized as having a positive perception of funding commitment. Only 27, 29, and 29 percent of respondents with below, average, or above average information, respectively have a positive perception of continued funding (Table 4.2). These differences are not statistically significant and reflect widespread pessimism about future funding.

Table 4.2: Accuracy of Information and Perception of Credible Commitment Among Survey Respondents

	Funding Perception		Perception of Policy Continuation	
	Positive	Negative	Positive	Negative
Teacher’s Information				
Below average	27%	73%	36%	64%
Average	29%	71%	42%	58%
Above average	29%	71%	57%	43%
Total	28%	72%	43%	57%

¹¹ The average number of correct responses was 4.8 with a mode of five correct responses. If teachers did not respond to all seven items, they were excluded from the analysis.

Teachers were also asked whether they agree with the statement, “The district will still be offering Professional Pay in five years.” Those who either generally or completely agreed with this statement are characterized as having a positive perception of policy continuance. The percentage of respondents with below, average, or above average information having a positive continuation perception are 36, 42, and 57, respectively. While it appears that teachers with more accurate information may have a more positive perception of policy continuation, differences are not statistically significant.

Interviewees who are enrolled in Professional Pay are more likely to have a negative perception of the district’s credible commitment than respondents who are not enrolled (Table 4.3). This is inconsistent with theoretical expectations. We would expect respondents with more positive expectations to be more likely to enroll than respondents with negative expectations because the longer expected life of the policy would increase the reward/effort ratio for participating.

Table 4.3: Enrollment Status and Perception of Credible Commitment Among Interviewed Teachers

Teacher’s Enrollment Status	Perception of District’s Credible Commitment		
	Positive	Negative	Unsure
Enrolled	9%	74%	17%
Not Enrolled	17%	46%	38%
Total	13%	60%	28%

There are two reasonable explanations for these empirical results. The first is that enrollees may simply be trying to qualify for short-term benefits. Several respondents

mentioned that they were going to take advantage of “cheap credits” – the professional development provided by the district to Professional Pay participants at no charge – for as long as the program lasted. Others said that they were frozen on the steps and lanes schedule (experience pay increases are not annual for more experienced teachers) and so had nothing to lose by signing up for a year or two. In addition, there was a bridge payment offered at the program’s inception to encourage enrollment. Since interviews were conducted early in the policy’s history, enrollment may have been motivated by the bridge payment and some of these participants may later move back to steps and lanes. Finally, the reward for critical skill set participation is not added to base pay – they are short term rewards – and the full payment is received shortly after successful completion of the critical skill set. Some enrolled teachers may be taking advantage of short-term opportunities even though they do not believe that the program will stay in place for very long.

Another possibility is that the interview data are driven by the fact that non-enrollees are more likely to be unsure whether the district is credibly committed or not. This is not the result of greater plan knowledge on the part of enrollees (correlation = .22) and may reflect the fact that enrollees have a financial stake in Professional Pay and have thought more about the program’s future. Non-enrollees cite reasons including an inability to commit to additional professional development due to time constraints and impending retirement when discussing why they are not interested in the program. Since these teachers have already made the decision not to enroll based on reasons unrelated to the policy’s persistence, they have little reason to spend time thinking about the district’s commitment. In contrast, enrollees may have learned more about the program after

enrolling (because they had a financial stake in doing so) and concluded that it was unlikely to persist.

As mentioned earlier, survey respondents were forced to make a positive or negative choice on items related to credible commitment. When “unsure” is no longer an option, we see the expected patterns (Table 4.4). Enrollees are more likely to have a positive perception of funding and policy continuation than non-enrollees. Differences are statistically significant ($\Phi = .204$, $\alpha = .041$ and $\Phi = .254$, $\alpha = .01$ for funding and policy continuation, respectively) and the magnitude of the relationships would be characterized as important.¹² While this pattern reflects the theoretically expected behavior – teachers are more likely to participate in the policy when they believe credible commitment exists – it may also reflect enrollees’ reluctance to express pessimism. Teachers who are enrolled may simply be hoping that the policy will endure and survey responses may reflect their unwillingness to admit fears that they may have enrolled in a program with no long-term benefits. As with the interview results, the relationship may also be influenced by timing – the survey was conducted the year after the bridge payment was offered – or enrollees may be trying to take advantage of short-term opportunities to increase their salaries.

¹² Φ values below .2 indicate a negligible relationship, values from .2 to .5 are characterized as important, and those greater than .5 are considered very strong.

Table 4.4: Enrollment Status and Perception of Credible Commitment Among Survey Respondents

Enrollment Status	Funding Perception		Perception of Policy Continuation	
	Positive	Negative	Positive	Negative
Enrolled	37%	63%	56%	44%
Not Enrolled	19%	81%	31%	70%
Total	27%	73%	41%	59%

The district's past actions may also affect credible commitment. Teachers who observed instability in past district policies may be more likely to expect Professional Pay to be short-lived. It appears that this may be the case (Table 4.5). Sixty percent of interviewed respondents feel that district policies are not stable and these teachers are more likely to believe that the district is not credibly committed to Professional Pay. This finding is not unique to Minneapolis. A study of another alternative compensation program, Pennsylvania's Lead Teacher Program, also noted the residual effects of constantly changing policy directives (Ceroni & Garman, 1994). Teachers told stories of devoting time and energy to policies that were later abandoned. Over time, they learned to ignore new policies and became increasingly cynical about the odds a new policy would persist. In other words, past experiences with unstable policies negatively affected their perception of credible commitment regarding newly introduced policies.

Table 4.5: Stability of District Policies and Perception of Credible Commitment Among Interviewed Teachers

Policy Stability	Perception of District's Credible Commitment		
	Positive	Negative	Unsure
Not stable	14%	66%	21%
Mixed/unsure	0%	20%	80%
Stable	14%	57%	28%
Total	13%	58%	29%

The relationship between perceptions of district policy stability and credible commitment was particularly pronounced among teachers who were interviewed during the 2003-2004 school year.¹³ Between these interviews and those that took place the preceding school year, the state and district superintendents were replaced and local teacher's contract negotiations stalled. Following this upheaval, teachers were more pessimistic about the district's credible commitment to Professional Pay (74 percent compared to 50 percent the prior year) whether they generally found policies stable or not. Teachers appeared to be weighing the district's recent poor behavior more heavily than actions taken in the past when thinking about credible commitment. This is consistent with Tirole's (1996) and Miller's (1992) observations that the principal's reputation is fragile and can be easily destroyed by any perceived untrustworthy behavior.

The surveys, which were also conducted during the 2002-2003 school year, show a pattern similar to that of the later interviews. Seventy-nine percent of surveyed

¹³ Detailed breakout available upon request from the author.

respondents disagreed with the item that stated, “District policies remain stable over time,” and teachers who felt that policies were not stable were more likely to believe that the district and/or state would discontinue funding and that the policy would no longer be in place in five years (Table 4.6). The relationship between perceptions of stability in district policies and continued funding was important and statistically significant ($\Phi = .249, \alpha=.014$) while that between stability and policy continuation shows a similar pattern but is not significant ($\Phi = .166, \alpha=.099$).

Table 4.6: Stability of District Policies and Perception of Credible Commitment Among Survey Respondents				
	Funding Perception		Perception of Policy Continuation	
Policy Stability	Positive	Negative	Positive	Negative
Stable	48%	52%	63%	37%
Not stable	21%	79%	43%	57%
Total	27%	74%	59%	41%

These empirical results are consistent with our theoretical expectation that the stability of past district policies affects future expectations. We might also expect expectations to be colored by a respondent’s overall perception of MPS. Teachers who have positive perceptions of the district might be more likely to expect the district to honor its commitments. This hypothesis was tested using the survey data. The survey contained ten items, including the stability statement above, that were combined to create a perception of district variable.¹⁴ The correlation between a positive perception of the

¹⁴ Appendix II provides more detail on the creation of this variable and the perception of colleagues and perception of administrator variables.

district and positive expectations regarding future funding was strong and statistically significant (Point biserial correlation = .256, $\alpha=.012$) as was the correlation between a positive perception of the district and positive expectations about policy continuation (Point biserial correlation = .362, $\alpha=.000$). Teachers' perceptions of the district may affect their views of the district's valuation of a trustworthy reputation. Since principals who value a trustworthy reputation are seen as less likely to renege on agreements and more likely to credibly commit, respondents with positive perceptions of the district are more likely to believe that credible commitment to the policy exists.

Another possible explanation is that some respondents are simply more optimistic than others. They may tend to use the positive end of the rating scale more often and to view colleagues, administrators at the school level, and district level personnel and decisions in a positive light. This type of respondent might be optimistic about credible commitment as well. To test this possibility, the funding and policy continuation variables were compared to the perception of colleague and perception of administrator variables. In all cases, correlations were small in magnitude and statistically insignificant. While general optimism may play a role in the correlation between perceptions of credible commitment and of the district, it is not driving the results.

Many teachers are pessimistic about Professional Pay's future and virtually none express unbridled optimism. The majority of respondents believe that the policy will have a short life and even fewer are confident about future funding. This pessimism appears unrelated to understanding. While we will see in Chapter 5 that a lack of understanding has implications for implementation, it does not appear to have a significant effect on perceptions of credible commitment. The same is true of enrollment

status. Respondents' enrollment decisions are only loosely related to their perceptions of credible commitment. This may be because some of the plan's rewards, such as the bridge payment offered at its inception and payment for participation in critical skill sets, are short-term in nature. Some enrollees may have based their decision on these short-term rewards, rather than activities with longer reward streams such as attainment of advanced degrees and completion of MPSU 1-2-3 courses.

Teachers' perceptions of past policy stability and their overall perception of the district are both correlated with perceptions of credible commitment. While it is possible that these relationships are the result of an omitted variable, the empirical findings are consistent with theoretical expectations and do not appear to be the result of response bias. It appears that both past experiences with district policy stability and respondents' overall perceptions of the district's reputation affect perceptions of credible commitment.

Why Are Teachers Concerned? Perceived Obstacles to Credible Commitment

During the interviews, teachers who were pessimistic about the district's credible commitment to Professional Pay were asked about the specific reasons for their pessimism. Reasons varied but many of them center on a lack of political will to continue the program at the local and state levels and on funding constraints. These reasons are similar to the challenges discussed in chapter 3; they are sensible reflections of the MPS context.

Lack of political will

Respondents perceive that the political will necessary to sustain the program is lacking. At the local level, they feel that support for policies comes and goes and that Professional Pay will be no different. MPS teachers are not unique in their perception

that policy is often unstable as a result of shifting political power. In a study of urban teachers, it was found that teachers were angry about “the steady, perplexing changes they experience. Veteran teachers live through a constant barrage of ‘restructuring’ and ‘reform’ that arrives with each new wave of power, either in the central office of the school system or in the city or state in which they happen to teach” (Nieto, 2003, p. 65).

The complaints of Minneapolis teachers are similar to those in Nieto’s study. One interviewed teacher noted, “It seems like every year or few years, what we are attempting goes out the door and we try something else,” while another commented that, “I kind of feel like it’s going to be a fad...and with all of these cuts, Professional Pay might be lost in the shuffle, too.” Teachers doubt that Professional Pay will receive long-term support since policies have been rapidly abandoned in the past.

Teachers believe that the changing cast of players at the district level exacerbates this policy churn. One said, “I think it will be just like everything else, just kind of fall away by the wayside and then we’re on to something different because somebody else has thought of some big plan that’s going to make things wonderful.” Another felt that, “Somebody will come in with a brand new idea,” while still another said that:

...then all of a sudden, someone looks at it and says, ‘Well, this isn’t working.

Whose idea was this?’ Because we have a short history, we have a short attention span. Someone says, ‘Let’s get rid of it and do something else because we’re better than the other people.’ I mean, that’s just the way it goes.

They believe that current district leadership is likely to be transitory and new leaders will discontinue Professional Pay. Newly hired district administrators often introduce new policies. While this is not an altogether negative behavior, particularly if old policies

were ineffective, it increases teacher's pessimism about the district's credible commitment.

Political changes at the state level increase pessimism as well. As mentioned earlier, teachers do not believe the new governor supports Professional Pay and several mentioned his Superteacher plan, a proposal to pay a limited number of "superteachers" of core subjects as much as \$100,000, as a potential replacement for Professional Pay. They worried that, "...with the change in superintendents, the change in different things that are going on, budget cuts, with Pawlenty, the way he's running the budget now, unless there's something at the end of the rainbow, I don't, I don't really see that that's going to happen," and that, "I don't think this plan will go far because of politics. Pawlenty's master teacher thing will win out."

They are no more optimistic about the odds that plan continuation will receive legislative support. They do not believe that voters will be supportive of a plan that guarantees no downside risk for teachers – "If it involves increasing the teacher pay, the average, then the taxpayers are going to scream...I can't see taxpayers paying more than they are now" – and feel that current legislators will not support the plan's continuation without public support. One respondent noted, "The state thing will dry up I suspect. Things change with election cycles and how education is looked at will change." Another respondent believed that, "[plan continuation] would be up to the politicians...and considering the atmosphere out there, I doubt it very much. I think this may be it," because "they [legislators] do not want teachers to make more money...I don't think they're interested in teachers getting paid more." This perceived lack of support at the state level, combined with the history of policy and personnel churn at the

local level, results in a pessimistic view of the district's desire and ability to credibly commit.

Teachers do not see strong support for Professional Pay at either local or state levels. At the local level, they feel that policies are generally not sustained over time and that personnel changes fuel this short-term outlook. On the state level, they feel that teachers, particularly Minneapolis teachers, have fallen from grace and there is no political support for programs benefiting teachers.

Funding constraints

A lack of political will at the state level might not disturb teachers if they believed the district would and could continue the program without state funding. As mentioned in the previous section, teachers are unsure if the district has the will to do so, given its history of policy instability and personnel churn. Many teachers also question whether the district has the financial ability to continue funding Professional Pay once the state grant runs out.

When asked whether "The district will continue funding Professional Pay after the initial state grant runs out," and "The state will continue funding Professional Pay after the initial grant runs out," only 15 percent of respondents expressed agreement. Not one survey respondent *strongly* agreed with either funding statement while almost one quarter *strongly* disagreed with both statements. Some surveyed teachers were also suspicious about the district's intentions or ability to honor their current financial commitment. When non-enrolled teachers were asked to what extent: "I don't believe that the district will actually pay us what we have earned," affected their decision, 24.4 percent responded, "to some extent," and 15.6 percent responded, "to a very great

extent.” These teachers do not believe that the will and the ability to fund current obligations are both present.

During the interviews, teachers expressed skepticism regarding future funding as well. When asked about the program’s future, one teacher responded, “In the near future, I see it disappearing or going way back just because of money and the way the economy is and everything.” MPS is currently experiencing a budget shortfall and one teacher was unsure whether even current salary obligations could be met: “There are a lot of questions as to whether there was actually money to pay people. Even in steps and lanes.” Teachers do not believe that the district has the ability to fund Professional Pay without assistance from the state.

Between lack of local political will and funding constraints, teachers generally believe, as one teacher puts it, “It’ll go away...with the finances the way they are...Our district does a number of things, they were great ideas but they can’t follow through with it so I can’t imagine how they would follow through with this.” Teachers do not believe that the district has made a credible commitment to Professional Pay. Past experiences, a lack of political support, personnel churn at the local level, and fiscal pressures all play a role in their belief that the Professional Pay will be a fleeting feature of the policy landscape.

Skepticism regarding funding was not limited to teachers who believed that the policy will disappear over the next few years. Several enrolled teachers who reported being unsure about Professional Pay’s prospects over the next several years indicated that their uncertainty was partly the result of financial concerns. When asked whether she thought Professional Pay would still be around in several years, one teacher said, “You

know, that's really hard to answer because I have no idea what the money situation is going to be like." She indicated that money would be a factor in the district's ability to continue the policy but did not feel she understood the district's finances well enough to make a judgment about the likelihood of continued funding.

Not all teachers felt that the district would be unable to fund the program. Eighteen percent of survey respondents generally agreed that the district would fund the program after the state grant ran out. During the interviews, six teachers expressed a belief that the district would fund the program after the state grant period because of its positive effect on teachers and students. One teacher commented, "I think that probably the district, after a couple of years...they'd be seeing benefits from it in teachers...in student achievement...I think that they would pick it up. I think it'd be in their best interest to pick it up and help. Depending what the budget looks like." Another said, "As much as they could, I think they would [continue funding Professional Pay], if it's popular enough." Even these optimists express some concern about the district's ability to fund the program. Another teacher was blunter. He speculated that, "It [state funding] will vanish. Outright, overnight, just vanish and then the individual districts will be responsible for picking it up somewhere. So another damn program will be cut." He told me that he believes the district will receive negative publicity and a hand slap from the state if they use state funds to establish the program and then abandon it. He worries that the district might eliminate other, more educationally valuable programs in order to continue funding Professional Pay. This subset of teachers is more hopeful about plan continuation than the majority of respondents but they are still concerned about the district's ability to pay for the plan in the long-term.

Conclusion

Professional Pay may turn out to be a short-lived innovation. The political will and financial resources to sustain the program appear to be lacking. Teachers are aware of the district's inability to credibly commit and this may affect their responses. Some teachers may be reluctant to participate in what they perceive as a short-term policy. Other teachers may be choosing to participate but doing so selectively. They may engage in rewarded activities that are quite similar to what they would have done anyway and avoid the difficult work of meaningful change. There is some evidence from the interviews that teachers may be engaging in these behaviors; this will be discussed in more detail in the next chapter. If the district is unable to credibly commit to Professional Pay and to persuade teachers of their commitment, the program is unlikely to work in the intended ways. Teaching quality and the performance of students are unlikely to improve under these circumstances and the fault will not lie with the policy details themselves but with the political and institutional characteristics of the district within which they are embedded. Without credible commitment, Professional Pay is likely to become yet another example of a policy that ripples only the surface of the water while leaving the strong currents underneath the surface untouched.

There is evidence that MPS cannot credibly commit to Professional Pay and that teachers are aware of this problem. This would not be particularly disturbing if this problem were unique to Minneapolis but this may not be the case. All of the factors that make it difficult for MPS to credibly commit are likely to occur in other districts. In a democracy, shifting political support for policies is the norm, rather than the exception, and all school districts are dependent on political support for their programs to survive.

Even in districts where a greater proportion of funds come from local property taxes rather than categorical grants from the state, school board members are answerable to taxpayers. School districts do not control their own destinies; their fates are decided by politicians who may or may not understand the effect that policy churn has on people within the educational system.

School districts may face a greater problem in credibly committing than other public agencies. While all public agencies are dependent on government patronage, few face as much scrutiny as schools. When problems arise in other agencies, we rarely find mothers and children marching on the capital steps or these problems being front page news. Education has a high political profile and it is tempting for politicians to make their mark by introducing a new wrinkle in the education policy arena. In addition, politicians may feel more comfortable dictating policies in education than in many other agencies. New York's Mayor Bloomberg feels competent to dictate a reading program to be used in all the city's schools yet how many politicians would feel comfortable dictating the training procedures that a fire department should use? In this kind of environment, with shifting political preferences and new players feeling that they can and should make their mark on schools, it is difficult for a school district to sustain policies over time.

Inconsistent state support is not the only problem facing MPS as it tries to credibly commit to Professional Pay. Local personnel churn is a problem as well. As with inconsistent state support, the local personnel churn observed in Minneapolis is not unique. Few urban school districts have superintendents who remain for long periods of time. The average urban school superintendent remains with a district for an average of

five to six years before being replaced (Blom et al., 2002; Yee & Cuban, 1996). When all districts, not just urban ones, are studied, median tenure increases to 7.5 years (Natkin, 2002). While MPS has had much higher turnover in recent years, even this five- to six-year average for urban school districts would be a relatively short time frame if a teacher is concerned about whether a compensation policy will persist over his or her entire career. New superintendents and district administrators come in with their own ideas and with programs that rarely outlive the new leadership, so teachers' concerns about changing superintendents is probably justified.

School districts in general and MPS in particular may be unable to credibly commit. This inability does not mean that new policies will never replace the status quo but does make it more complicated to make them work in the intended ways. An awareness of these problems is helpful as policies are developed. External constraints can be used to tie the king's hands and force states and districts to honor the promises they have made. MPS tied its own hands somewhat when it agreed that teachers would receive their Professional Pay rewards if the plan were discontinued. The initial funding cycle for new policies can be lengthened to lessen the chance that a policy will be eliminated before it has become institutionalized. MPS does not have this tool at its disposal; the grant based nature of the program means that the legislature, not the district, controls the length of the funding cycle. Either of these actions, external constraints or lengthened funding cycles, would increase the district's ability to credibly commit to a program, and thereby enhance teachers' perceptions of this commitment.

Policy-makers often complain about the difficulty of changing teachers' behavior. This is not surprising in an environment where policies come and go and teachers have

few guarantees that their efforts to change will be rewarded. If policy-makers cannot credibly commit to a policy, teachers will have little motivation to make long-term changes to their practice. Change is slow and difficult work, and it is tempting for teachers to ignore the policy de jour since the next regime change is likely to, once again, change the rules of the game. If school districts are unable to credibly commit, the most carefully designed policies may be doomed to failure. There is evidence that MPS is unable to credibly commit to long-term policies due to the political and institutional environment within which they operate. The factors that make it difficult for MPS to credibly commit – shifting political support for policies, unstable leadership, and tenuous funding – are all common problems faced by many districts, particularly those in urban areas. The inability of school districts to credibly commit has been largely ignored in the literature but may be a significant factor in the failure of many policies to positively affect practice. This work begins to examine the role of credible commitment but much work remains to be done before we can examine its full policy impact.

Chapter Five

Riding Out the Storm:

Teachers' Responses to Professional Pay

In this chapter I examine teachers' responses to Professional Pay and the reasons they provide for those responses. First, we will look at teachers' enrollment choices in this voluntary program. We will see that the majority of MPS teachers are not currently enrolled and many enrollees do not appear to be active participants. The second section of this chapter will unpack the reasons for this muted policy response. The third section will place those reasons within the agency theory context, proposing theoretical elaborations that will enhance our understanding of teachers' responses to compensation systems.

Four main factors affecting teacher response will be explored. The first relates to the issue of capacity that arose in Chapter 3. We will see that the district's efforts to address limited technical capacity by tying incentives to professional development may be ineffective in many cases. We will further extend the question of excess capacity to consider whether the assumption that teachers can work harder than they already do is a reasonable one. The policy's inclusion of professional development opportunities implicitly assumes teachers can spend more time learning than they already are. For reasons that are both professional and personal, this does not hold for all teachers.

The second reason, also foreshadowed in Chapter 3, concerns the agency assumption that consistent, complete policy understanding exists. This assumption appears to be violated in our case.

The third question concerns the usefulness of financial rewards as a primary incentive for teachers. While agency theory allows for a range of incentives, it is generally deployed as justification for using financial incentives to change behavior. It appears that, given current reward levels, incentives other than financial rewards may be more powerful for teachers.

The fourth issue is related to credible commitment. This chapter will not explicitly revisit Chapter 4's findings but the reader should keep them in mind. Most teachers do not believe Professional Pay will be a long-term policy. Skeptical about the district's commitment, informants worry that the district will be unable to fund the policy once the initial grant period is over. This perception may color teachers' responses when they are questioned about other aspects of the policy, such as the desirability of rewarded professional development opportunities. While underlying concerns about credible commitment will not be addressed in this chapter, one aspect – trust – will be discussed. Several teachers expressed concerns about the likelihood the policy will be administered fairly and promised rewards paid. These concerns are reminiscent of, but distinct from, concerns about longer-term credible commitment.

Enrollment Choices

Before unpacking teachers' responses, it is helpful to look at their options and at the kinds of teachers selecting each option. Teachers can respond to the voluntary Professional Pay plan in one of three ways. They can decide not to enroll in the program and remain in steps and lanes; they can enroll in the program but not participate in any rewarded activities; or they can enroll in the program and earn additional pay by participating in rewarded activities. Teachers who participate in rewarded activities

choose whether or not to modify their practice in response to those activities. All of these teacher choices affect the policy's results.

The Enrollment Decision

At the time the research was conducted, roughly 36 percent of MPS teachers were enrolled in Professional Pay. A slightly higher percentage, 40 percent, of the district's middle school teachers had enrolled. There was a great deal of variation in the percentage of enrolled teachers across middle schools, ranging from 20 to 73 percent. Enrollment does not appear related to school achievement or to the school's percentage of English Language Learners or children eligible for free or reduced lunch. As discussed in Chapter 2, the weighted surveys appear to provide a reasonable sample of the district's middle school teachers; thus, the more detailed information on participation which follows – information which is unavailable for the district population as a whole – is based on these samples.

Teachers with more than ten years of teaching experience are significantly more likely to enroll in Professional Pay than less experienced teachers (50.9 percent compared to 32.0 percent, Chi-square=3.796, $\alpha = .051$). This may be because the salaries of more experienced teachers are frozen at various points on the traditional steps and lanes schedule. Once teachers have more than ten years of experience, they move up a step on the salary schedule approximately every five years, rather than annually. When teachers compare the increase they will automatically receive on steps and lanes to the rewards they believe they will earn on Professional Pay, teachers in these frozen areas have a greater – at least financial – incentive to participate. Another possibility is that more

experienced teachers, who tend to be older, may have fewer family obligations (e.g., young children) making it easier for them to participate in rewarded activities.

Teaching assignment and enrollment are strongly correlated ($\Phi = .381$, $\alpha = .001$). Only 24.5 percent of core subject teachers are enrolled in Professional Pay, while 65.7 percent of classroom teachers who do not teach core subjects and 42.0 percent of eligible personnel who are not classroom teachers are enrolled. This pattern appears strange at first, but we will see that eligible personnel whose work is outside the classroom setting may be unlikely to participate because rewarded offerings are less relevant to their work. It is less clear why teachers of core subjects (reading, English, social studies, science, and mathematics) are reluctant to enroll. Teachers of core subjects may be reluctant because they are interested in subject-specific professional development (all rewarded offerings thus far have been generic). Teachers of core subjects are also more likely to say that their non-enrollment decision was influenced to a very great extent by a belief that, “The extra money wasn’t worth the effort required to earn it” (25.6 percent compared to 5.0 percent).

Gender does not appear to play a role in the enrollment decision: 43 percent of surveyed females and 40 percent of surveyed males were enrolled, an insignificant difference.

Teachers with more positive perceptions of their administrators are also more likely to be enrolled (Point-biserial correlation = $.214$, $\alpha = .029$). Since perceptions of school administrators are not correlated with school site to any significant degree, this correlation does not appear to be an artifact of different working conditions across schools.

Professional Pay is administered by district (rather than school) administrators, but there is no significant correlation between perception of district and the enrollment decision. This is perplexing but one possible explanation is that the small number of teachers with strongly positive perceptions of the district made it difficult to discern differences between enrolled and non-enrolled teachers. Another possible explanation is that the items related to district perception covered a broad range, including perceptions of personnel, policy stability, and agreement with policy decisions.

Responses to the item, “I trust district personnel to implement Professional Pay in a fair, evenhanded manner,” are significantly correlated with the enrollment decision (Point-biserial correlation = .210, $\alpha = .033$). This makes sense – teachers who trust the district to administer the policy appropriately are more likely to enroll even if they do not always agree with district policies or find particular personnel easy to deal with. When trust is not present, the teacher may minimize interactions with the untrustworthy party (Tschannen-Moran & Hoy, 2000) – in this case the district – by avoiding participation in policies that are subject to district discretion. Many teachers view Professional Pay as subject to district discretion so, if they trust the district, it makes sense that they would be more likely to enroll.

Forms of Participation

Once teachers decide to enroll, they have a further decision to make: the form of their participation. They can be token participants who enroll but then do not participate in rewarded activities or they can actively attempt to earn rewards. A little over half, thirteen out of twenty-three, of the enrolled interviewees reported some form of active participation. At the time of the interviews, active participation could take two forms:

participation in rewarded district course offerings or earning additional academic credits and certifications.

Twelve (out of 13) active participants mention enrolling in district courses that qualified for rewards. Seven teachers reported participating in the critical skill set on “Improving Instruction Through the Use of Data” (Table 5.1). For the 22 teachers interviewed during the 2002-2003 school year, this course was the only qualifying class that had been offered at the time of the interview. The twenty-six teachers interviewed the following spring would have also had the opportunity to enroll in the first MPSU 1-2-3 class, ENVoy™. Four teachers were ENVoy™ participants, two had also taken the critical skill set the previous year. When asked if they had done anything that qualified for additional pay, three teachers reported taking other district classes that they believed qualified for Professional Pay. While these classes did not actually qualify for rewards, they are included as a form of active participation since these respondents believed that they were part of Professional Pay.

Table 5.1: Participation in Rewarded Activities

Form of participation	# of teachers
No action as of yet	10
Participation in critical skill set	7
Participation in MPSU 1-2-3 class	4 *
Participation in district classes that did not qualify for rewards but that respondents believed would qualify for rewards	3
Finish master's degree, begin working towards NBPTS certification	1

*** Two of these teachers had also participated in the critical skill set. Twenty-two of the forty-eight interviews took place before any MPSU 1-2-3 offerings were available.**

Only one teacher reported participating in activities outside of the district course offerings. This teacher was finishing his master's degree by the end of the school year and planned to begin working towards NBPTS certification the following year. He understood that these activities qualified for rewards and this influenced his enrollment decision.

The fact that only one teacher reported working towards advanced degrees and NBPTS certification as his form of participation is not surprising given the study's time frame. Since advanced degrees and NBPTS certification are both more involved undertakings than district coursework, some teachers may have been reluctant to commit to these activities so early in the policy's implementation. Concerns about the policy's persistence, discussed in Chapter 4, may discourage participation in longer-term activities. As the program matures, participation in these longer-term activities may become more frequent. The short time frame from the policy's inception to the

interviews is also undercounting teachers who are slowly working towards degrees but have not taken any classes since enrolling. Two teachers who were working towards advanced degrees mentioned that they were looking forward to being rewarded for future classes under Professional Pay but have not had time to take any academic classes since enrolling.

Altogether, thirteen enrolled teachers report participating in a rewarded activity. Almost all had taken some form of workshop that they believed qualifies for rewards. While this still leaves only a little more than half the enrolled sample actively participating, these numbers may be misleading. Several factors may be decreasing the proportion of participants who have participated in rewarded activities.

First, the district had only offered a few courses that were specifically designed for enrollees and advertised as such when the interviews were conducted. Also, some program components, such as rewards for taking on extended professional responsibilities, were described in the literature available to teachers as they made their enrollment decision, but were not operational when interviews were conducted. Teachers who found non-operational components appealing may be planning to qualify for additional pay through these components in the future.

In addition, there is uneven understanding among enrollees about what counts for Professional Pay and about course availability, a topic that I will discuss later in this chapter; some participants may have been waiting for more information before signing up for rewarded activities. Finally, the district offered a bridge payment to teachers who agreed to enroll in the program during the summer of 2002. This may have encouraged some teachers to sign up who are uninterested in active participation.

In the survey, teachers were asked, “to what extent have you or do you plan to (within the next year) engage in professional development activities that qualify for Professional Pay?” The overwhelming majority of enrolled teachers (88.2 percent) report to some or a very great extent with a substantial minority (30.2 percent) reporting a very great extent. This stands in contrast to the interview finding that only 56.5 percent of enrollees had actually participated in rewarded activities and supports the idea that more enrollees plan to take activities than have been able to thus far. In addition, almost half (48.8 percent) of surveyed enrollees agree that they have or plan within the next year to take university coursework in response to Professional Pay. While these percentages are not as high as those who plan to participate in rewarded professional development activities, the pattern holds. Enrolled teachers plan to participate more actively over the next year than they have so far.

The policy’s ultimate goal is not merely to have teachers participate in rewarded offerings; it is to have them use what they have learned to improve their practice. Interviewed teachers were asked how they had used what they learned in their practice. Of the 13 teachers who participated in rewarded activities, one reported no change to her practice, seven reported very small changes, and five reported somewhat larger changes. No one reported substantial changes. As one teacher notes, “I would say it probably affected it [her practice], kind of like a small ripple instead of a huge ripple in a lake.”

Surveyed teachers were also asked about changes to their practice. When asked if they planned to continue using their new skills after satisfying the program requirements, 69.8 percent of teachers generally agreed and 25.6 percent of teachers completely agreed. In a similar manner, 85.7 percent agreed that they have already or plan within the next

year to change the way they teach in response to the policy. The survey did not attempt to gather information about the nature of these changes but it seems reasonable to expect them to be similar to the incremental changes reported during interviews.

This cursory reporting should not be interpreted as an analysis of actual changes to practice. Changes were self-reported and teachers may have over- or under-reported. No classroom observations took place and with the exception of Andy, whose story will be told later in this chapter, none of the reported changes to practice were verified by other school personnel. An accurate depiction of the policy's effect on teacher practice was beyond the scope of this project but would be an excellent topic for further study.

Why Is Meaningful Participation Rare?

The majority of MPS teachers are not enrolled in Professional Pay and almost half of interviewed enrollees reported that they had not participated in any rewarded activities. This section will explore the reasons why so few teachers seem to be responding to this policy. Issues of capacity, understanding, motivation, and trust all affect teachers' responses and are discussed in this section.

Building Capacity or Missing the Mark?

MPS hoped to address capacity issues by linking additional pay to participation in targeted professional development opportunities. The MPSU 1-2-3 offerings, critical skill sets, and financial rewards for advanced academic coursework and NBPTS certification all attempt to increase teachers' expertise. Unfortunately, these attempts may be missing their mark for many teachers. Interviewed teachers often indicated a belief that they are better judges of their professional needs than district personnel. Many teachers also indicated that, even when offerings are worthwhile, they don't have the time

or the energy to take advantage of them. Both of these beliefs are formidable obstacles to the district's attempts to build capacity through Professional Pay.

Teachers are often reluctant to cede control over their professional development choices. Some of these teachers are quite skeptical of the district's ability to offer worthwhile activities. Jean is one of these teachers.

Jean's story.

Jean¹⁵ does not teach in a classroom setting but, as a licensed employee, she is eligible for Professional Pay.¹⁶ While she has only worked at Washington Middle School for a few years, she has over 15 years of district experience. In contrast to many of her gregarious peers, Jean tends to be soft spoken and thinks carefully before speaking.

Jean enjoys the time she spends with colleagues and often works with classroom teachers to help meet the needs of specific students. She finds her colleagues in Washington to be more engaged in professional development than at other schools she has worked in and enjoys the opportunity to share new ideas with them. Jean believes the school principal "has really supported people in terms of getting other training, paying people to come in and do things after hours and whatever, or take other classes," and that this has contributed to the atmosphere of learning.

Jean does not generally participate in the same professional development opportunities as Washington's classroom teachers. Like many licensed employees who are not teachers, she has to take specialized professional development in order to maintain her license and has tended to concentrate on this. The press to take specialized

¹⁵ All school names and names of respondents are pseudonyms.

¹⁶ Licensed personnel include positions such as classroom teachers, media specialists, speech language clinicians, TOSAs, and school social workers.

professional development has largely dissuaded her from enrolling in Professional Pay. She worries that, if she enrolls, she will be “trying to sort of juggle two different systems at once” – the licensure system and Professional Pay. She is willing to manage this juggling act if it would help her grow as a professional but she feels that, “they [district implementers] have not been able to identify the kinds of training that would be applicable to all the people who are covered by it...It wasn’t clear to me that there were going to be the professional offerings that would be helpful to me.” Jean is unwilling to participate in rewarded offerings that will not help her grow professionally.

Jean also worries about the quality of the rewarded offerings. Several colleagues at her own and other schools who participated in the critical skill set offering told her that it was low quality and a waste of their time. Jean wants to be sure that her professional development time is spent in high quality, relevant courses and is not sure that Professional Pay supports those efforts.

Jean is unwilling to trade her own professional development agenda for the one rewarded by the district. Jean is unconvinced that the district’s agenda will provide her with the skills she needs to do her job well and the fact that the district offerings will not help her meet licensure renewal requirements for her specialization supports this concern – if her licensing board does not support the district’s agenda, why should she? Thus, for specialists operating outside of classroom settings, the district’s efforts to increase technical capacity may be missing the mark. The skills needed to help these specialists work smarter may not be the ones covered in district offerings.

This frustration is not limited to licensed personnel who are not classroom teachers. Non-classroom teachers, elective teachers, and teachers of core subjects all

voice similar concerns – a lack of relevance to their professional needs and poor quality. Some of this is understandable. There are few funds available for developing and offering meaningful rewarded opportunities. Most of the enabling grant is earmarked for teacher salaries and professional development funds are quite limited throughout the district. Faced with this dilemma, current offerings have tended to be somewhat general in nature (data driven instruction, classroom management strategies) but largely oriented towards classroom teachers. They may be too vague to appeal to classroom teachers focusing on their particular content area or student population while being too specific to appeal to personnel whose main responsibilities are outside the realm of the classroom.

Moreover, even teachers who believe that rewarded activities are probably worthwhile are often reluctant – like Jean – to cede control over their professional development. Consider Annette's story.

Annette's story.

Annette is a young teacher at Pressley Middle School. She teaches several core subjects and, as a result, has several preps each day. Annette appears to take her teaching responsibilities quite seriously. In addition to her unusually heavy (for a middle school) planning load, Annette often puts in time after school working with particular students, is working on an advanced degree, participates in ongoing district professional development opportunities on the weekends, and mentioned several workshops that she had attended the previous summer. Most of these activities are subject-specific and, since Annette is trying to improve her knowledge and pedagogical skills in all the subjects she teaches, she is constantly weighing the relative merits of various professional opportunities.

Annette spoke repeatedly about the importance of reflecting on her practice:

I think whenever you're reflecting on your teaching as a practice, whenever you're in a class or doing some development with it, or even just at home journaling, I think you're always improving yourself as a teacher because you're looking at what you're already doing and trying to make it better.

Annette tries to incorporate the best parts of what she is learning into her teaching. She feels that the only way to determine what will be successful in her own classroom is by trying things out and reflecting on her experience.

Annette's interest in her own learning extends to her interactions with colleagues. She has an excellent rapport with the teachers on her team and reports that they often discuss curriculum, student needs, special education concerns, and the impact of various programs and policies on their students. Her only frustration is that she has few opportunities to discuss particular lessons and student work with colleagues in her school. Although she has those opportunities in some workshops and institutes she attends, Annette wishes there was time to participate in lesson study with the teachers in her own school as well.

Annette occasionally calls on the expertise of school administrators and district personnel when she is having difficulty and has been satisfied with the quality of the assistance she has received. Despite this, she describes her interactions with the district office as "frustrating": "Just a lot of running around and go to this office and then go to that office and, 'No, you don't go here. We moved here.' And a lot of dead ends." Annette's frustration was largely limited to interactions with the human resource department – Annette relates a story about running around to four different offices to

solve a seemingly straightforward problem – but these experiences were sufficiently aggravating to unfavorably color Annette's general impression of district personnel.

Annette enrolled in Professional Pay because she was close to completing an advanced degree and realized that participants receive a larger pay jump than the one provided by the steps and lanes schedule. Beyond that, she is not particularly interested in rewarded activities. She has a clear vision for her own professional learning and is not interested in substituting rewarded activities for her current plans.

Given that she already stays late to work with students and participates in professional development on the weekends and during the summer, Annette cannot add more to her already crowded schedule. Annette sees this policy as another layer to be added to her current professional development plans. Motivated to improve her practice through professional development, Annette does not see the rewarded activities as a particularly appropriate means to do so. Hence, the rewarded activities are an addition to, rather than a replacement for, her current efforts. She hopes the district will arrange for substitute coverage and offer some rewarded activities during the school day but, if that does not happen, she does not see any way to add extra professional development to her current load. She is already spending as much time as she can on job-related activities.

In addition to the class time that she would have to spend to earn rewards, Annette is leery of the policy's action research requirement. This is a bit surprising since Annette is an active action researcher. When asked about this, she explained:

When you are taking classes and you are adapting them into your class work, it becomes tedious and monotonous to record it, it becomes more red tape to get that into the district to get your bonus...If I actually have to write up a research project

and submit that, then that's going further than me just doing professional development to improve my teaching in the classroom. And then I think that does take away from the student learning because it takes away from your planning time, it takes away from your organizational time...I think there are so many teachers who are not in the Professional Pay plan who are obviously going to professional development and...I think that was one of the reasons why they chose not to [participate].

Annette conducts action research related to professional development coursework and writes journal entries where she reflects on that research, but is unwilling to spend additional time packaging this work for district review.

The main obstacles for her are an unwillingness to substitute rewarded offerings for her preferred professional development choices and insufficient time to layer additional activities onto her already crowded schedule. Her professional development decisions are primarily motivated by a desire to improve her teaching, not financial rewards, and she does not see a tight coupling between her desire to seek out learning opportunities and the policy's focus on professional development. In addition to her unwillingness to cede control over her professional development choices to the district, Annette is unwilling to spend her precious professional development time documenting her learning for the district's edification.

Annette does not appear to be particularly motivated by the additional money available to plan participants. While she signed up to increase the size of her reward for attaining an additional degree, she was already close to earning the degree before the policy was put into place, so she did not have to change her behavior in order to earn

more. Several teachers who have participated in rewarded offerings report similar behavior; they would have participated in the activity whether or not there was a financial incentive to do so. Annette also reports being aware that the plan pays rewards to enrollees in schools that meet their quality performance goals but seemed quite unconcerned about whether or not she actually received the money. While Annette would prefer to make more money – the larger rewards for advanced degrees were her primary reason for enrolling – most of her focus is on improving her professional skills, not financial considerations.

Annette's story reveals the complexity underlying each teacher's story. While discerning patterns in teacher's responses is helpful as we seek to understand response, it is important not to dismiss the messiness of individual stories. The "black box" of decision-making can be simplified through the use of patterns but, if policy modifications are to be effective, policy-makers must return to individual stories as well. For example, Annette had mentioned during her interview that paid release time for professional development would appeal to her. If policy-makers acted on this simple request while ignoring the rest of Annette's story, the change might be ineffective. Annette is interested in subject-specific professional development and might be reluctant to leave her students – even if there was a substitute – to attend more generic opportunities.

While the details may vary, the outline of Annette's story is not unique. Teachers' stories are affected by their unique subject matter, personal circumstances, and professional experiences but many shared her concerns regarding control over their professional development agendas and time constraints.

One elective teacher, Paul, reported attending a diverse set of professional development offerings largely on his own time and expense. He strongly believes that it is his professional obligation to remain involved in continued learning:

It's all about being a professional...It's like going to professional conferences that are within your . . . area of expertise. It would be great for the school to be able to pay for those things for you to go to, but then you should also be a professional and you should go to them on your own. You should read professional journals just because you're a professional. If you're saying that teaching is a profession and we're using profession in whatever form of the word, then you need to *be* professional.

Despite his enthusiasm for his own professional growth and willingness to invest uncompensated time in both professional development activities and activities with students, Paul decided against enrolling in Professional Pay. Well informed about the plan, familiar with its operational components, and generally positive about it, Paul was not willing to substitute the district's choices for his own and does not have time to take on new obligations.

Another perceived problem with rewarded offerings is a lack of integration with current activities. MPS teachers are asked to respond to a variety of policies: literacy initiatives, testing directives, and individual Professional Development Plans (PDP). Even cursory attention to all of these separate, sometimes conflicting, policies eats up an enormous amount of time especially since – consistent with the district's belief that capacity building is an important component of successful policy implementation – many place their own professional development demands on teachers.

Two enrolled teachers mentioned that they were already taking a series of unrewarded classes associated with grants their schools had received. Since none of the rewarded offerings appear connected to what they are learning in those classes, the offerings do not appeal to them. One of these teachers, Beth, commented, “if you’re putting something else on the workload and have it required to go up on the pay scale, it sure better be integrated with what you’re already doing because otherwise this is like you can’t make yourself do anything beyond what you’re doing or you get crazy.” When asked if she would consider signing up for a rewarded offering, she said, “If it was good for my program, if I had the time, I would sign up for it. But as you get older, you think you have the energy but you don’t have as much as you thought you did...Part of the whole problem with this whole thing is where is the teacher going to get the time to do that much extra work...So it’s the classic problem of too much to do.”

While Beth mentioned that she did not have the energy she had as a younger teacher, she was still going far beyond the minimum professional development required of her. She remains involved in her own professional growth despite the fact that, as a seasoned teacher with over 20 years of experience, she faces few external pressures to do so. The classes she was taking focused on a particular group of challenging students and she felt the time spent improving her expertise in teaching these children was worthwhile. She did not have additional time to spend on professional development unless it dovetailed with those current activities. The rewarded offerings appeared disconnected from her current focus and, therefore, distracting or irrelevant. Already working at capacity, she was unwilling to take on more.

This perceived disconnect between Professional Pay and other professional development may be discouraging teachers who are otherwise well-suited for the plan from participating in rewarded activities. Annette, Jean, and many other teachers, both enrollees and non-enrollees, who were not active participants were involved in professional development activities; they were not trying to do the minimum needed to get by. They are exactly the kinds of teachers the plan was designed to retain and reward – teachers who work hard at improving their professional skills, often on their own time. Yet they are failing to reap financial rewards under Professional Pay.

Professional autonomy.

MPS has tried to develop a policy that will reward teachers for increasing their technical capacity while providing the means to do so. These teachers have already developed their own plans to increase their technical capacity – sometimes collectively on a grant with colleagues, sometimes on their own – and they are unwilling to let go of these plans to make time for the district's capacity building activities. They believe that they are the best judges of what they need in order to become better teachers.

Survey respondents express similar sentiments. Seventy-one percent of non-enrolled teachers agreed that a preference for making their own choices about professional development was a factor in their decision. Just as teachers continue to teach in ways they feel are beneficial to their students even when state mandates instruct them to change these practices (Grimmett & Neufeld, 1994), MPS teachers continue to follow a professional development agenda that they feel will allow them to serve their students better, even when this is not the rewarded agenda.

The district should not be surprised. The district's own literature regarding Professional Pay states:

Adults are *autonomous* and *self-directed*...Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests...Finally, they must show participants how the class will help them reach their goals...Learning has to be applicable to their work or other responsibilities to be of value to them.

(Ritterson, 2003, emphasis in original)

The district understands that teachers are unlikely to unquestioningly embrace the district's professional development agenda, but does not appear to have the resources necessary to solve this problem.

Teachers' unwillingness to substitute the district's professional development agenda for their own can be interpreted in several ways. Teachers may be exercising what Buchmann (1990) characterizes as "empty" personal freedom, clinging to their own choices because they are more pleasant than district choices – less work or more focused on topics they personally enjoy learning about. This interpretation is consistent with the assumptions of agency theory since it assumes that the individual is attempting to minimize work effort.

Another potential interpretation is that teachers are reluctant to give up their professional autonomy. Professional autonomy is characterized by an unwillingness to surrender control over events based on "*fidelity* to professional ends and to those people who are actually one's clients" (Buchmann, 1990, emphasis in original). In this scenario, teachers place student needs above their own desire for additional pay and believe their

own professional development choices will serve students better than the district's choices. Most interviewees seemed more committed to professional autonomy than personal freedom. When discussing their reluctance to substitute rewarded offerings, they tended to bring the conversation around to the types of professional development that will allow them to better serve their students. Some teachers refer to subject specific pedagogy as an important skill to develop while others discuss their interest in learning how to more effectively teach certain challenging student populations.

It is, of course, possible that teachers couched their preferences in these terms because of normative pressures. It is more acceptable in education to justify an act in terms of one's students than oneself. However, my brief experiences with many of these teachers led me to believe this is not the only reason. Interactions that I witnessed with students and colleagues outside of the interview context were generally consistent with an ethic of professionalism and caring. On several occasions, I overheard teachers discussing a student's academic and behavioral difficulties during their free period. Teachers who were experiencing some success with the student shared their insights and advice with their more frustrated colleagues. Another teacher, worried about a frequently absent student, was asking colleagues what they knew about the student's home situation since the teacher was having difficulty reaching anyone by telephone. While humor and exasperation often played a role in the interactions I witnessed, a sense of caring flowed through almost all of them. Fidelity to one's clients – students in this case – seemed pervasive within the schools. Other researchers have found evidence that teachers are critical consumers of professional development, choosing opportunities they believe will be beneficial to their students (Cohen, 1990; Cohen & Hill, 2001; Wilson, 1990). While

these choices may not always be consistent with policy-makers' preferences, they do reflect fidelity to professional ends and to their students.

Time constraints.

Teachers' unwillingness to substitute the district's professional development agenda for their own might not be a problem if teachers believed they were capable of doing more. They could do both sets of activities. Agency theory generally assumes agents are capable of increasing effort but these teachers do not believe that is the case. Having already given up much of their leisure time, teachers talked about time spent in professional development, participating in school and district committees, and working with students and did not believe that they could put in greater effort than they already were. This was particularly true of teachers in the highest achieving of the three interview sites, Maclaven Middle School. At Maclaven, two-thirds of non-enrolled interviewees cited a lack of time as the primary reason for their decision to remain on steps and lanes and almost all of them recited a daunting list of current professional obligations. For example, one teacher talked about working with students after school several days a week, serving in a leadership role on a school committee, attending several subject-specific out-of-town workshops and several local district professional development offerings each year, and reading professional journals. These teachers are overwhelmed by their current activities and see meaningful participation in Professional Pay as an additional obligation, not as a way to be rewarded for their efforts.

Surveyed teachers agree insufficient time is an obstacle to meaningful participation; indeed, lack of time was the most common obstacle to enrollment among surveyed teachers. Seventy-five percent of surveyed non-enrollees agreed that "I'm

already doing as much as I can and couldn't take on one more thing" was a factor in their non-enrollment decision. Forty-seven percent agreed with this statement to a very great extent.

MPS teachers are not unique in feeling time pressure. In Nieto's (2003) work with excellent urban teachers, she finds that, "In my work with teachers, this is the one issue on which almost all agree – there simply is not enough time in the day to do all that they need to do" (p. 125). Many teachers Nieto worked with recognized the need to carve out time for learning, as well as the more obvious tasks such as grading and planning. They found it extremely difficult to meet all of their professional obligations, believing they had already maximized their effort.

There are, of course, some teachers who are not particularly involved in professional development activities and are nevertheless unwilling to add more to their workdays. These teachers cite personal, rather than professional obligations as the reason why they cannot do more. Two respondents had young children and did not feel they could increase their time away from their families. Another was having a difficult year professionally; survival was consuming all of her energy. One teacher who talked about a full plate of professional development activities also mentioned caring for an aging parent. Personal preferences for limiting workdays may play a significant role in decision making by other respondents as well. Interviewed teachers may have overemphasized their professional obligations while minimizing their personal preferences given the interview context.

Not all teachers are unwilling to take on additional tasks. Two participants saw Professional Pay as another avenue to obtain high quality professional development,

enrolling because of the additional professional development opportunities made available to them. Enrollees received priority when signing up for rewarded offerings and they found this appealing:

[Participation] made good sense to me because I take advantage of the classes.

And I wanted to be able to take advantage of the classes. I knew if I was part of the plan, not only would I get the monetary benefit of the plan, but I would also be given some priority when I sign up for those classes. And they have filled up pretty quickly.

These teachers are exceptions to the generally observed pattern. Teachers are often unwilling to take on additional professional obligations, particularly when these obligations are seen as professionally unrewarding or inconsistent with their own professional development agendas or other district initiatives. Their vision of working smarter is continuing the professional development agendas they have constructed for themselves rather than incorporating the district's rewarded offerings into that agenda, or displacing their agenda for the district's. One possible factor influencing these decisions and perceptions might be scarcity of information or misinformation, issues that surfaced in the interviews. The next section will discuss the role limited information and misinformation plays in teachers' responses.

Limited Information and Misinformation

Professional Pay is a fairly new option for teachers and many do not completely understand this rather complicated plan. Some respondents were unaware of key plan components and others harbored misconceptions. While the majority of teachers were

interested in learning about the plan, some have not received adequate opportunities to do so; others suggested that they had received information but been too busy to read it; still others have not sought out information because they had heard that pay was tied to test scores and this idea did not appeal to them. A little over half of surveyed non-enrollees indicate that they did not know enough about the program to be comfortable participating in it. And almost all survey respondents, non-enrolled and enrolled, revealed an incomplete or incorrect understanding of the policy. Let us first consider Bonnie's story as illustrative of how information problems may discourage participation.

Bonnie's story.

Bonnie has been teaching a core subject for almost 20 years, all of them in Minneapolis middle schools. She has been at her current school, Washington Middle School, for several years. While Bonnie is interested in improving her practice, family obligations make it difficult for her to attend sustained professional development. She recently took several district courses to improve her teaching of English Language Learners, but found it difficult to find the time to attend the courses and incorporate what she was learning into her teaching. She decided not to enroll in the final course in the series because of those time constraints. Conversations with colleagues are the mainstay of her current professional learning. She discusses strategies with other teachers and reports that the shared district classes they have taken often provide common ground for those conversations.

Money is also an obstacle for Bonnie. Her salary helps support her family and, as her children approach college age, discretionary funds to pay for professional development are not available. Bonnie is interested in increasing her salary but is not

certain that Professional Pay will help her do so. She is considering working towards her master's degree if she "can handle the tuition" and, at the time of the interview, believed that this would only be rewarded if she remained in steps and lanes: "I have to decide if I'm going to do the Professional Pay or the masters or if I'm just going to be satisfied with what I'm presently making."

Despite Bonnie's inability to invest a great deal of time or money in her own professional development, she appears interested in her students' welfare. During my visit to her school, I was able to observe Bonnie during some of her breaks and lunch periods. In addition to participating in the usual social chitchat of the lounge, Bonnie initiated several conversations with colleagues about particular children who were either experiencing academic difficulty or social problems. She is concerned about her students, both as learners and as children who need nurturing, but competing demands at home limit her ability to invest a great deal of outside time in formal professional development.

Bonnie would like to earn more and feels that the steps and lanes schedule gives her very few ways to do so. She found the flexibility of Professional Pay attractive, for she had heard that there are several ways to earn rewards under the plan. However, she was unable to describe any of the rewarded activities although she remembers that "certain kinds of committees are counted too" but feels that "you can run programs after school and not necessarily become a better teacher," so she is not interested in this type of participation.

Bonnie recognizes that she knows very little about the plan's specifics but family obligations have made it difficult for her to attend informational meetings. Other than the

meeting notices, Bonnie has only seen one memo related to Professional Pay and, based on that memo, Bonnie feels that, “it [the policy] all still seems very vague.” Until she receives additional information, she has decided to remain under steps and lanes.

If Bonnie were better informed about Professional Pay, she might be interested in enrolling. Some means to earn rewards, such as critical skills sets, do not require a large time commitment and are offered free of charge to participants. Others, such as rewards for meeting school and district performance goals, do not require any additional effort on Bonnie’s part. While this might be problematic if policy-makers hope the policy will improve the quality of teaching, it would make enrollment more appealing to Bonnie. In addition, Bonnie believes that the attainment of advanced degrees, an option that she is considering, is not rewarded when, in reality, the rewards for advanced degrees are greater under Professional Pay than under steps and lanes. At the time of the interview, there had only been a few opportunities for Bonnie to learn about the policy and she was unable to take advantage of informational meetings because of family obligations. Without more information, Bonnie was unwilling to take a perceived risk with her salary.

Bonnie was not alone. Several other teachers do not feel they understand the plan well enough to enroll. One teacher is interested in the concept but reports that, “I don’t even really know what it is.” Another teacher had trouble understanding the literature she had received and said, “When I did get the stuff, it made no sense to me so I just tossed it,” while another commented, “I didn’t fully understand it to the point where I could tell right away that it would be better for me than what I have already.” These teachers have received information but do not have the time and motivation to try to learn about this complex plan.

Other teachers are enrolled in the plan but limited understanding is discouraging their active participation. Three enrolled interviewees were unaware the district was offering classes that qualified for Professional Pay. One teacher, Mark, does not realize the policy is even focused on professional development: “I don’t see any support coming from the system other than my checkbook getting fatter. So I think it’s a way to get the conveyer running faster at the auto plant without having to do anything else. Pour in the money.” As discussed in Chapter 3, this is exactly the scenario the district was trying to avoid when the policy was designed. Despite the district’s efforts to design the policy so that technical capacity is increased, Mark thinks of this as an effort to increase learning (speeding up the conveyor) without giving him the tools to do so intelligently. He did hear something about the critical skill set offering after it was over but he was unsure what it had been about and exactly how it related to the policy. Given that the district characterizes Professional Pay’s emphasis on professional development as ‘the heart of the program,’ it appears that the district has not done a particularly good job of communicating information to all the enrolled teachers.

These teachers feel that they don’t know very much about the plan. They all report receiving information from the district or union but found the information insufficient. Other teachers have misconceptions that make the plan unattractive to them. These teachers think they understand certain plan components when, in fact, they do not.

Bonnie’s belief that advanced degrees are not rewarded is typical of this confusion. Another teacher was also confused about whether or not the plan rewarded advanced degrees. He was about to do a lane change and did not think Professional Pay rewards advanced degrees, “so I didn’t feel that I was going to benefit from doing it.

And beyond that, I didn't have enough information...I opted to stay with what I knew."

Both Bonnie and the other teacher, who was at a different school, mentioned that they did not feel that they understand the plan and both believed that advanced degrees are not rewarded.

Other teachers have the impression that rewards are primarily based on student outcomes, teacher performance evaluations, or both. One teacher said, "The way I remember it was that it was, I think a school had to set some goals about achievement. And if you met those goals, you would be rewarded one way or the other." He is unaware of any rewards for professional development, the program's core. Another commented, "I've only heard that it's some kind of reward system that would depend on achievement of the students but I haven't kept up to date on the specifics of it." Uninterested in rewards based on student outcomes, this teacher did not take advantage of opportunities to learn more about the plan. In reality, student outcomes are a small plan component, not the centerpiece as these respondents seem to believe. Interviewed teachers were generally opposed to outcome-based compensation, believing that this would be unfair to teachers (who have little control over who they teach) and would not support students (since teachers would have a financial incentive to prefer students with certain characteristics). Teachers who believed that Professional Pay is outcome-based were often uninterested in actively seeking out information – they were predisposed to dismiss the policy. If they learned more about the policy, they might be convinced that the professional development aspects of it are in the best interest of students. Unfortunately, this learning is unlikely to occur when teachers have limited information and the district has a limited capacity to provide that information.

Some teachers also believed that teacher performance evaluation is part of the plan although it is not included at all. They were uninterested in a plan of this type because of concerns about whether performance evaluation can be done in an objective manner: "It sounds like something that would be almost impossible to implement fairly. I don't know how or who would really be able to be responsible for deciding who gets more money fairly." Another noted, "I mean, it's all just subjective. It all just depends on who is doing the evaluation of the teacher and what that person's particular views are...I'm against Professional Pay in the way they do it at least." Here, both teachers were critical of a component that does not exist,

When another enrolled teacher was asked if she had done anything in response to the plan, she answered, "No, not that I know of. I don't know what I'm expected to do so I haven't done anything because of it [the plan]." She is so poorly informed that she does not even know if she has participated in any rewarded activities. She is not alone. Another teacher reports that she signed up without knowing very much because her colleagues were positive about the policy. She particularly trusted one colleague: "She [a colleague] encouraged us to also sign up so we signed up. We had no idea what we were signing up for at the time." At the time of the interview, this teacher still had only vague notions about what she had signed up for. She has not made a conscious decision to avoid rewarded activities; the decision is a result of limited information: "I haven't done anything as a plan participant because I had no idea what you were supposed to do." As with the three enrollees who were unaware of offered classes, her lack of active participation was due to a lack of information.

Problems of limited information and misinformation may decrease with time.

The plan is still quite new and teachers have had limited opportunities to learn about it.

As more teachers participate in rewarded activities, they may begin to share their experiences with colleagues. In addition, teachers will have more exposure to district and union literature and presentations as time passes. This may lessen the problem of limited information and misinformation but it is unlikely to disappear.

The policy had been in place for almost two years at the time of the survey and over half of non-enrolled teachers still cited lack of information as a problem. When asked to what extent various factors affected their participation decision, just over half of non-enrolled respondents agreed to some or a very great extent that, “I don’t know enough about the program to feel comfortable participating in it” was a factor. One-third of respondents strongly endorsed that statement, agreeing that it influenced them to a very great extent while an additional 18 percent agreed that it influenced their decision to some extent.

In addition, misconceptions were still common at the time of the survey. Teachers were asked whether a series of statements was true or false. Table 5.2 reports the percentage of respondents who had correct responses to each statement. The majority of respondents incorrectly believe that Professional Pay does not reward advanced degrees. While only a small number of interview respondents mention this as a decision factor, teachers are unlikely to mention this as a drawback unless they are planning to work on an advanced degree in the near future. When interviewed teachers were asked specifically about this component, they often were unsure whether or not advanced degrees were rewarded. The district’s focus on providing teachers with information

about MPSU 1-2-3 courses and critical skill sets may be leading teachers to conclude that traditional university coursework is not rewarded.

Table 5.2: Survey Respondents' Understanding of Plan Components

Statement	Percentage of <i>correct</i> responses
1. Professional Pay pays teachers more if they earn advanced degrees.	35%
2. Under Professional Pay, teachers receive additional pay for <i>all</i> the professional development that they participate in.	76%
3. Professional Pay pays teachers more if their students score well on tests.	71%
4. Professional Pay pays teachers more if they take on responsibilities outside of teaching (i.e., testing coordinator).*	37%
5. Only certain district professional development opportunities qualify for professional pay.	87%
6. Teachers must demonstrate that they use what they have learned in their classrooms in order to receive professional pay for workshops.	88%
7. Some teachers who participate in Professional Pay may make less money than they did before.	86%

Note: For bolded items, "True" was the correct response. For all other items, "False" was the correct response

* This component was planned, but not yet operational, at the time of the survey.

In addition, almost two-thirds of teachers did not believe that extended professional responsibility compensation was a component. Enrolled teachers were significantly more likely to harbor this misconception than their non-enrolled peers (77

percent compared to 53 percent, Chi-square=6.015, $\alpha = .014$). This component is mentioned in the available literature but enrolled teachers may concentrate on what is currently rewarded. Since extended professional responsibility compensation was not operational at the time of the survey, teachers were less likely to consider it a component.

While respondents were much more likely to answer the other questions correctly, substantial numbers of teachers were still confused about whether teachers are paid for high student test scores and whether all professional development is rewarded. Twenty nine percent of teachers believed that enrolled teachers would receive higher salaries if their students received higher test scores.

Almost one-quarter of respondents believed that all professional development is eligible for rewards. Sixteen percent agreed with both items two and five despite the fact that they cannot both be true. The items were both on the screen at the same time and respondents had the opportunity to change their answers at any time during the survey. These teachers may not have been reading the survey questions carefully or may have found the wording confusing. Given the problems with illogical responses to this pair of questions, it is difficult to be certain if incorrect responses to question two were the result of misconceptions about the policy or poor survey design.

Some teachers, 14 percent, believe that enrolled teachers may see their salaries diminish. A larger percentage of non-enrollees believe this than enrolled teachers (29 percent compared to 7 percent, Chi-square=2.718, $\alpha = .10$). This misconception may be discouraging some non-enrolled teachers from considering plan participation.

While problems of insufficient information and misinformation may diminish over time, they were still quite common almost two years after the policy was put in

place. These problems appear to be depressing enrollment. As mentioned above, over half of non-enrolled respondents agreed that insufficient information played a role in their non-enrollment decision. Non-enrolled teachers do not necessarily believe the worst – 41 percent report being somewhat satisfied with Professional Pay and 66 percent agree it should continue to be offered – but they were unwilling to enroll without more information. Teachers who would be well served by Professional Pay may be choosing to remain on steps and lanes because of limited or incorrect information and thereby missing the opportunity to earn higher salaries and to further their professional growth through district offerings. This may adversely affect their willingness to remain with MPS. In addition, if they believe that the district is engaging in behavior (e.g., paying teachers for student test scores) that they strongly disagree with, their opinion of the district is likely to suffer, also making them more likely to leave.

Information problems among enrolled teachers may have unfortunate consequences as well. The first of these is lost learning opportunities. Professional Pay is predicated on the idea that increasing technical capacity is an important component of better teaching. The district hopes to encourage teachers to participate in a package of activities, including advanced degrees, specific professional development opportunities, and extended professional responsibilities, that it believes will increase teachers' technical capacity. If teachers are unaware of those opportunities, the policy's full potential to increase technical capacity may not be realized.

The second potential problem is that teachers may begin to suspect the worst. Mark's worry that Professional Pay was speeding up a conveyor belt is illustrative. In the absence of information to the contrary, Mark assumes that the district focuses on

student outcomes when distributing rewards and that the district is unaware of the limited technical capacity of teachers to improve. He is becoming disenchanted and suspicious based largely on his lack of information. The district has designed a policy that largely addresses Mark's concerns but this message is not getting out – not even to the enrollees.

Information problems did exhibit a pattern that may be helpful to implementers attempting to provide teachers with opportunities to learn about the policy. In both interviews and surveys, teachers who reported information problems tended to cluster in certain schools. Further investigation of this clustering revealed no clear correlation between the average collegiality, perceptions of school administrators, district perceptions, school-wide Professional Pay enrollment rate, or school achievement level and the school's likelihood of having information problems. While these are not the only within school factors that might be affecting information availability, they are likely candidates. Since they do not seem to be related to information problems, factors external to the school may be affecting information availability.

While the data from this study do not allow for an analysis of these outside factors, it might be worthwhile for later researchers to look at the relationship between learning opportunities made available to teachers in particular schools and the frequency of information problems. Teachers in some schools may have had a greater number of opportunities to learn about the policy if district and union literature was distributed in a timely, accessible manner within their schools. District-wide informational meetings may have been held at locations and times that were more convenient for teachers at some schools than others and union stewards may have been better informed in some locations. In addition, some learning opportunities may be more effective than others.

One study of the implementation of the 1985 Mathematics Framework in California found that some opportunities to learn about the policy affected teachers' ideas more than others (Cohen & Hill, 2001) and this may be true in our case as well. MPS teachers can learn about this policy in a variety of ways including literature available in schools, the union website, informational meetings led by district or union personnel, and the experiences of colleagues who are participants. Some learning opportunities may be more effective at helping teachers learn about the policy than others.

In sum, the assumption that agent understanding is consistent and complete is violated. Let us now consider another assumption, that of the strength of financial motivators in changing behavior.

Money as a Primary Motivator

This policy, like all compensation policy, is predicated on the assumption that money has a significant effect on employee behavior and decisions. While there is undoubtedly some truth to this – it seems safe to assume that MPS teachers are not motivated solely by non-pecuniary rewards – money may play a smaller role than expected in changing teacher behavior. Virtually all interviewed teachers indicated that they care about money, but only a small minority considered the policy's promises of additional pay a sufficient incentive for changing their behavior.

One of the most striking aspects of the interviews was how infrequently teachers introduced money into the conversation, given that we were discussing a compensation policy. Every teacher, even those who knew very little about Professional Pay, believed that it is primarily a new way to pay teachers, not a professional development or accountability policy. Despite knowing that Professional Pay is, as the name implies,

primarily about pay, they talked at length about the policy's perceived impact (or lack thereof) on their professional development agendas and on their students, but they had little to say about the actual rewards. When directly asked about rewards, they virtually all agreed that more money would be desirable but very few seemed particularly interested in changing their behavior in order to earn it. Quite a few teachers mentioned that the prospect of increased pay had motivated them to enroll but most of these same teachers were not participating in any rewarded activities – when it came time to change their behavior in order to earn rewards, they were not doing so. Of those who had participated in rewarded activities, only a third cited the prospect of increased pay as their primary motivator. While agency theory makes the general assumption that incentives, whether money or another desirable good, will motivate people to change behavior, applications of the theory generally make the narrower assumption that money is a strong incentive, particularly when compensation policies are studied. But the assumption that money is a strong inducement to change behavior is not supported by the empirical evidence here. While virtually all of the teachers in this study consider additional pay a desirable good, few appear to be *strongly* motivated by the pay incentives.

When 24 non-enrolled teachers were asked why they had decided against enrollment, most cited non-financial reasons but three of them noted that they did not believe the rewards were worth the required effort. Peter decided against initial enrollment because he would be better off financially under steps and lanes: “When this first came out and I looked at it, I was where I was going to make a fairly substantial movement in the salary (schedule) and I thought that was a sufficient amount of movement.” Peter would have been hard pressed to participate in enough activities to

improve his steps and lanes rewards. Many teachers reported receiving similar advice from their union representatives. Teachers were told to compare their automatic increases to the rewards they believed they would receive under Professional Pay when making their enrollment decision. While Peter cited financial considerations for his initial decision not to enroll, he failed to enroll in year two as well. When asked about his decision in year two, Peter explained that he was too busy with his current obligations to take on rewarded activities so there was still little point in enrolling. Like other teachers, he was unwilling to substitute rewarded offerings for his own professional development agenda and felt unable to add new ones to his current schedule.

Two other teachers explained that they decided not to enroll because they were nearing retirement. With only a few years to reap the rewards, they decided it was not worth the additional work to earn rewards. While only 12 percent (three out of 24) of interviewed non-enrollees mentioned that they did not believe enrollment was financially worthwhile, a larger group – thirty-three percent – of surveyed non-enrollees agree to some extent that, “The extra money wasn’t worth the effort required to earn it” has affected their enrollment decision while 16 percent strongly agreed. This is a much greater percentage than in the interviews and may reflect the fact that teachers were not presented with specific prompts for reasons in the interviews. When confronted with a menu of possibilities in the survey, teachers may have tended to endorse any that seemed reasonable, whether or not they had served as serious enrollment obstacles.

This difference may also be the result of normative pressures in teaching to appear disinterested in financial rewards. Normative pressures may be depressing the number of interviewees who cite financial reasons for their lack of active participation,

but not having as great an effect on survey responses. The online survey format may make teachers more comfortable about revealing financial motivation since surveys could be completed at home, using the relatively anonymous medium of a computer.

When interviewed enrollees were asked why they had *not* participated in any rewarded activities, no one cited insufficient financial rewards. This is generally supported by the survey data as well. When asked whether, “The rewards offered under Professional Pay are too small for the work required to earn them,” 62.8 percent of enrolled teachers disagreed with the statement and only 4.7 percent strongly agreed. Many of the enrolled teachers found the size of rewards reasonable, but they were not motivated enough by financial rewards to respond. There are three factors that may be depressing the effectiveness of financial rewards as a motivator. The first has to do with policy itself, specifically the amount of rewards, the second has to do with the nature of those who choose to teach, while the third recalls the overwhelming busyness reported by many teachers.

Small reward amounts.

We begin by considering the amount of the offered rewards. The financial incentives to participate in rewarded activities are relatively small. During the 2003-4 school year, the minimum base salary for a novice MPS teacher with a bachelor’s degree was \$31,549. Professional pay provided only a few opportunities for teachers on Professional Pay to earn rewards during this period. If a teacher completed ENVoY™ and earned the maximum school performance award (which is largely outside of the individual’s control), he or she would earn an additional \$1,500, or 5 percent of novice pay. Since most MPS teachers earn more than the minimum base salary, the rewards as a

percentage of base pay would be even smaller for them. Lawler (1990) notes that increases of 10 to 20 percent are generally necessary before an employee finds it worthwhile to change behavior in response to a new pay incentive. The amounts available during the first few years of Professional Pay are considerably below that 10 percent threshold, particularly for experienced teachers. Thus, teachers have little financial incentive to participate when doing so will increase their workload. A perceived lack of credible commitment exacerbates the problem as, with the exception of critical skill set awards, rewards are added to teachers' base pay. At the time of the study, it was not clear if teachers would lose these additions to base pay if Professional Pay was discontinued. If teachers believe that they will only receive rewards for a few years, rather than over their careers, the perceived total compensation incentive decreases and, with it, the financial motivation to do the work needed for rewards.

There is some evidence that simply increasing the amount of rewards may fail to dramatically increase their motivational effectiveness. In 1998, the Massachusetts legislature created and funded a program to pay academically gifted prospective teachers \$20,000 signing bonuses to be paid out over four years. The first year bonus was \$8,000 and \$4,000 was paid in each of the remaining years. These are relatively large incentives yet researchers found that the money had a limited impact on individuals' decisions to enter and continue teaching over the four year rewarded period (Liu, Johnson, & Peske, 2004). Other factors, such as the accelerated certification available to program participants, appear to have been more attractive to prospective teachers than the signing bonus. When participants were deciding whether to remain in teaching from year to year, the financial inducements appeared ineffective as well. Working conditions were of

primary importance when most participants were making their stay/leave decisions and not a single teacher in the study considered the bonus money a decision factor.

Teachers' relative insensitivity to financial rewards.

Teachers may be relatively insensitive to financial rewards. Teaching is often viewed as a somewhat poorly paid profession, an impression shared by teachers and the general public. In a recent study, 75 percent of novice teachers agreed that they are seriously underpaid and 78 percent of recent college graduates agreed that teachers are seriously underpaid (Farkas, Johnson, & Foleno, 2000). Given the impression of poor pay prospects, it would be surprising if those who chose to teach were highly motivated by pay. As Nieto (2000) notes, "Teachers enter the profession for any number of reasons, but neither fame nor money nor the promise of lavish working conditions is at the top of that list" (p. 91).

Research tends to support the hypothesis that teachers are not particularly motivated by money. When novice teachers were faced with a hypothetical choice between pairs of schools, one of which offered higher pay and the other of which offered attractors such as "highly motivated and effective teachers," over three quarters of respondents chose to forgo higher pay (Farkas et al., 2000). In other studies, teachers were asked to rank the attractiveness of several hypothetical teaching opportunities by reading position advertisements. When economic incentives were emphasized in the advertisement, teachers found the position less attractive than when organizational climate (leadership style, etc.) or the work itself (specific responsibilities, etc.) were emphasized (Young, Rinehart, & Heneman, 1993; Young, Rinehart, & Place, 1989). Lortie found that only two percent of teachers cite financial reasons as key factors in their

own decision to teach and attribute financial motivation to only 37 percent of their colleagues (1975). School administrators also appear to agree with researchers' findings regarding teacher motivation. When school administrators were asked what choice they believed teachers in their school would make when choosing positions offering higher pay or better working conditions, almost three-quarters of them believed that teachers would forgo higher pay (Farkas et al., 2000).

The difference that Lortie (1975) found in teachers' attribution of their own motives compared to that of their colleagues does point out one possible interpretive complication. There are strong normative pressures for teachers to cite altruistic reasons for teaching (Farkas et al., 2000; Lortie, 1975), so teachers may be reluctant to attribute financial motivation to their behavior. Lortie (1975) attempted to minimize this problem when he asked teachers about the influence of money on colleagues' teaching decisions. Farkas et al. asked school administrators what they believed teachers would do for the same reason. In both cases, money was not considered a strong motivator by the majority of respondents. The design used in Young and colleagues' studies (Young et al., 1993; Young et al., 1989) largely eliminated normative pressure for teachers to nominate "noble" factors as more important than salary. Teachers were not forced to choose between higher pay and the other factors; they were asked which form of advertising would appeal to them if they were searching for employment. They were more enthusiastic about positions where non-economic position details were emphasized and relatively disinterested in financial information.

Too busy to respond.

The third factor that may be depressing the effectiveness of financial rewards as a motivator is the overwhelming busyness that many teachers report feeling. With many demands being made on their time, teachers may require a higher marginal return – whether measured in financial or professional dividends – before feeling that Professional Pay is worthwhile. Survey responses to, “I’m already doing as much as I can and couldn’t take on one more thing” were significantly correlated to responses regarding preferring to make their own professional development decisions (Spearman’s $\rho = -.456, \alpha = .002$) and may be somewhat related to the belief that, “The extra money wasn’t worth the effort required to earn it” (Spearman’s $\rho = -.214, \alpha = .16$). Teachers who did not believe they were capable of greater effort may be less persuaded by financial rewards than their less overwhelmed colleagues.

Policy-makers assume that teachers will find the financial rewards embedded in this policy attractive enticements to change their behavior. This may be overly optimistic. Both this study and previous empirical work indicate that the amount of rewards may be insufficient to motivate teachers to change their behavior and that financial rewards may not be particularly effective teacher motivators.

Some teachers do respond.

While the majority of respondents appeared relatively disinterested in rewards, one group – active participants – did talk about the attractiveness of promised rewards. Nine out of 13 active participants – 69 percent – said that money played a role in their decision to enroll in specific rewarded activities. While this is a small group (18 percent

of interviewees), it is worthwhile to explore this group since they exhibited the largest policy responses.

Kathy, a special needs teacher at Pressley, was one of five teachers for whom additional money was the primary motivation for active participation. Kathy took the rewarded critical skill set on using data to improve instruction because she was interested in increasing her salary. She had assumed that the class would not be helpful, noting that, “It’s really hard because – my special population, it’s [the class] not geared to me.” Had the money not been attached to the data analysis class, she would have spent the time in professional development geared towards meeting her students’ special needs instead.

While Kathy enrolled in the data analysis class for financial reasons, she was being more discriminating about ENVoY™ participation. She has decided not to take ENVoY™ unless a session of it is offered that is tailored to licensed employees who are not regular classroom teachers: “Because my population is so different, it’s like it would be hard for me to go with the regular ed [teachers] and do the ENVoY™ team thing.” She found adapting the data analysis class to meet her needs a laborious task and one that she was not anxious to repeat. While motivated by money, Kathy was unwilling to devote a great deal of energy to adapting another rewarded offering to her situation the way she did with the data class.

Financial considerations were also Sally’s primary incentive for participating in the data analysis class: Without the financial incentive, “we flatly would not have had, we would not have said, ‘Oh, let’s get together and spend a whole afternoon, just looking at data. Boy, wouldn’t that be fun.’” The data analysis class would not have appealed to her if it had not been part of Professional Pay. Sally was planning to take ENVoY™ as

well, but money did not play a role in that decision – she was interested in that class because the course content was consistent with her own plans for professional growth.

Janelle also spoke about the appeal of additional pay. Unwilling to increase her effort level unless she would be paid to do so, she commented, “We have lives and we’re very busy and most of us are parents.” With everything else in her life, she rarely finds time for classes on weekends or in the evenings; they often conflict with activities that her children are involved in. She has difficulty fitting classes into her schedule and finds the district offerings, both inside and outside of Professional Pay, limited and unappealing. Despite this lack of personal or professional motivation, she participated in what she believes to be a rewarded course so that she can earn additional money.¹⁷

In four other cases, money acted as the tipping point, motivating teachers to participate in offerings that were already somewhat attractive. Consider Andy.

Andy’s story.

Andy is a mid-career elective teacher at Maclaven. Extremely well liked and respected by his colleagues, at least six of his colleagues told me that I really needed to talk to him because he was doing all sorts of interesting things in his classroom, and because he was sharing the skills he was gaining through Professional Pay classes with colleagues. When we talked, I was not surprised by their recommendations. Andy’s demeanor combines the enthusiasm of a sixteen year old talking about his new sports car

¹⁷ The district course that Janelle had participated in did not qualify for Professional Pay rewards but she believed that it did at the time of the interview. Three interviewed teachers mentioned participating in activities outside of Professional Pay that they believed would be rewarded. These teachers were characterized as active participants in the analysis.

with the thoughtfulness of a monk reflecting on his spiritual journey and it was a pleasure to listen to him.

Andy is fairly selective about professional development. He tries to attend a few inservices through district offerings each year; and then focus his energies on integrating what he learns into his classroom practice. Unlike many teachers I interviewed, he is not particularly interested in summer workshop opportunities, for he guards this time, using it to personally recharge and to catch up on professional reading.

Andy did not join Professional Pay until the beginning of its second year. When the program was first offered, available information was scarce and confusing, so Andy took a wait and see attitude. By the second year, he had experienced more opportunities to learn about the policy and the combination of a higher potential salary and expanded professional development opportunities appealed to him. He had also worried that his salary could actually decline as a participant but learned that this was not the case.

Another incentive was a particular offering:

I saw the ENVoY™ was coming up and I always wanted to learn some more nonverbal things so I thought, it can't hurt me so I'm just going to sign up and do it because I wanted to take the class. And then I'm sure other good things will come up in the future that I could do too.

While ENVoY™ was appealing, Andy would not have signed up without the additional incentive provided by the money: "There's always that, for me, that motivation, too – the money...It does motivate so I saw that was there."

Despite his initial hesitation, Andy has become a strong proponent of Professional Pay. In addition to its financial appeal, he believes that the policy may provide increased

opportunities for professional interactions with colleagues. In Andy's case, this has already proven true. Several teachers reported doing informal observations in his classroom to see the ways he incorporates ENVoY™ techniques into his teaching. In addition, both Andy and his colleagues mentioned ongoing discussions about the techniques promoted in the workshops.

More than any other teacher I interviewed, Andy appeared to be making changes to his practice as a result of participation in rewarded offerings. Andy reports that ENVoY™ training encouraged him to make changes to his classroom teaching. Two teachers who occasionally observe Andy's classroom also volunteered to me that Andy is using the ENVoY™ skills regularly so the self-reported change in practice is apparent to at least two classroom observers.

Andy is not the only teacher who reports that money was the tipping point in deciding whether or not to participate in rewarded offerings. When I asked Anastasia whether she would have taken advantage of rewarded opportunities without the promise of additional pay, she replied:

I think I would have done them if they had been offered on a professional paid day. But I don't know that I would have taken them at night, without the pay, because I've done so many of those [night classes] already for different reading programs and things. And it just gets to be a lot. 18 hour classes, I mean, evenings – for free – I don't know that I would have continued doing that

Chris is more skeptical of the offerings but willing to give them the benefit of the doubt thanks to the financial incentive. She is skeptical about the content of rewarded

offerings and believes that “the one shot, canned thing” is unlikely to help her improve her teaching:

There is no teacher that I know alive that goes to a session for four hours and says, ‘Oh my gosh, I know how to teach much better than I ever taught before.’ Until you really get whatever it is into your routine and you make it a habit, it’s not going to happen.

Despite her reservations, Chris was predisposed to taking advantage of professional growth opportunities, and, therefore, she was open to the idea of Professional Pay’s offerings. Money was the push: “They say you’re going to get a \$500 bonus for doing this [data analysis class] so okay, I’ll do it.”

These nine teachers cited financial considerations as significant factors in their decisions to participate in rewarded activities but they represent a small fraction of interviewed teachers. The majority of MPS teachers are not responding strongly to the financial incentives in Professional Pay and small reward amounts, relative insensitivity to financial incentives, and a perception of overwhelming busyness may be muting their responses.

Lack of Trust

As discussed in Chapter 4, agency theory assumes that the principal is trustworthy and that agents are aware of this, but this assumption does not always hold true in this study. Several teachers expressed reservations about the district’s ability to administer Professional Pay in an objective, trustworthy manner, believing the district would favor certain teachers over others or renege on their financial promises. Others erroneously

believed rewards were based on teacher performance evaluation and did not believe evaluations would be done properly.

One of these teachers, Howard, expresses concerns about favoritism when rewards are distributed or professional development opportunities are made available. His concern is largely based on prior experiences in the district.

Howard's story.

Howard is a seasoned elective teacher with almost 25 years of teaching experience, the bulk of it at Washington. Initially hesitant about being interviewed, Howard agreed when he realized he could be interviewed in a private setting (most of the Washington interviews took place in the teacher's lounge). He overcame his initial reluctance because he wants his story, and the stories of other teachers of color, to be heard and feels that they are often ignored.

Howard is involved in interdisciplinary teaching with several other teachers and enjoys a good working relationship with much of the staff. As an elective teacher, he teaches children across grade levels and, based on conversations I observed in the lounge and in the halls, shares information about students and their needs with a broad cross section of his colleagues. When he has an occasional problem, he reports being comfortable asking other teachers to observe his teaching and that he reciprocates as well. As a seasoned teacher, the younger teachers seem particularly eager to learn from him and several of them are often drifting around, like shy fans hoping to get noticed by their favorite celebrity.

Howard finds his principal supportive and accommodating but, given his experience and the assistance available from colleagues, he rarely needs help from school

administrators. Howard's only real source of frustration within his building is that he finds that he and the other teachers of color are rarely asked to serve on school committees or placed in leadership roles. He said, "Sometimes you want to be asked because someone thinks you are capable. Now, you feel sort of special when that happens. I don't see that happening fairly and equitably around the building now."

Howard is quite distrustful of both the district and union, and his first comment regarding the policy was, "I wonder about their motive." He feels that it will be difficult for teachers of color to be assigned additional responsibilities that qualify for rewards or get into rewarded professional development opportunities. He worries that, "Just like we [teachers of color] don't get perks or strokes now, anything having to do with Professional Pay or paying people more money, I can absolutely see that not going toward teachers of color."

As a result of past experiences with the district, Howard is also concerned that the district will not provide policy support. When asked about his relationship with central office, Howard notes with a rueful laugh that, "I have really lost my trust and respect over the years because they promise so many things to us that they haven't come through with." He has little faith in the union either feeling that, "The union and the district are in bed together...we get no representation." Howard has no interest in participating in a policy he feels will be used to hurt teachers, believing that the district is dropping a poorly articulated policy in teachers' laps with no support. He notes that, "They pass these things and leave teachers to work it out...and when it doesn't work out, the district can blame it on teachers, say it was your colleagues that did it."

Howard is not alone in his concerns. Brandon, another teacher of color, said:

I have some serious questions about how people would be rewarded under the plan...Right now, with the steps and lanes, it's fair. If you have the education, then you get paid within a certain range. Now it's been my experience that there's a lot of exceptions to the rules and I can see doing that [making sure the same opportunities to earn additional pay were offered to everyone] would be very hard to monitor.¹⁸

Lou worries promised rewards will not be paid. He recalled another policy where, "I jumped on, we were supposed to get a brand new computer if we did a certain amount of stuff. And then right at the end, they said, 'Well, you know, that was an error.'" Lou is concerned that participation will involve a great deal of work and he will never see the promised financial rewards.

Professional Pay is a new concept for MPS and there are few examples in other districts for teachers to look to for reassurance. Changing to a new and innovative pay schedule requires a leap of faith on the part of participants. These teachers do not trust the district enough to make that leap. They all cite negative experiences during their tenure with the district, making them skeptical about the likelihood the policy will be implemented in an objective manner and promised rewards paid.

Distrust was a problem for many survey respondents as well. When asked about factors influencing their non-enrollment decision, 40 percent of teachers agreed to at least some extent that one factor was, "I don't believe the district will actually pay us what we have earned." As with the interviews, respondents with poor general perceptions of the

¹⁸ Given the small sample size in this study, it is unclear whether teachers of color are generally more likely to be concerned about favoritism than white teachers.

district and its policies were more likely to doubt that the district would behave in a trustworthy fashion. The district perception variable was highly correlated with doubts about receiving earned rewards (Spearman's $\rho = -.404$, $\alpha = .006$ ¹⁹).

Problems with distrust may be very resistant to district intervention. As previously noted, trust is much easier to destroy than to rebuild (Tirole, 1996). When teachers talk about their lack of trust, they have concrete stories supporting their concerns. Howard talked about broken district promises during one search for a new school administrator; Lou told about the promised computer that was never delivered despite his belief that he had earned it. Both individuals and entire groups of employees can become distrustful based on one broken promise. This is particularly true in a sector such as teaching where colleagues have opportunities to share stories with each other. Repairing this damage is a long term problem and one that, as discussed in Chapter 4, may be almost impossible for MPS to accomplish.

Summary

Response to Professional Pay has been muted. When this study was conducted, 60 percent of MPS middle school teachers avoided responding altogether, choosing to remain on steps and lanes. Almost half of enrolled teachers had not participated in any rewarded activities, leaving fewer than one-fourth of teachers as active participants.

While individual stories are unique, reasons generally fell in one of four categories: district efforts to build capacity are unpersuasive because teachers do not find opportunities professionally worthwhile and/or do not have time to take advantage of them; teachers lack adequate, accurate information; financial rewards are not sufficiently

¹⁹ The negative sign reflects the scaling of the variables. More positive perceptions of the district and higher trust levels were positively related.

motivating; and teachers do not trust the district to properly administer the policy. The most commonly cited of these are insufficient time to take advantage of opportunities and a lack of adequate, accurate information (Table 5.3). This was true for both non-enrolled and enrolled teachers. Teachers believe that they are too busy to add more activities to their busy schedules and are hesitant to actively participate in a policy they only partially understand.

Table 5.3: Interviewed Teachers' Reasons For Lack of Active Participation

	Non-enrolled teachers	Enrolled teachers	Total
Capacity: not professionally worthwhile	17 %	40 %	24 %
Capacity: insufficient time	46 %	50 %	47 %
Information problems	46 %	50 %	47 %
Not financially worthwhile	13 %	0 %	9 %
Lack of trust	13 %	0 %	9 %

Note: As many teachers cite more than one reason for a lack of active participation, column totals will exceed 100 percent.

Teachers, particularly enrolled ones, also cited concerns about whether active participation would be professionally worthwhile. Assuming that enrolled teachers have a greater incentive to learn about specific rewarded activities than their non-enrolled peers, it appears teachers who know more about the rewarded professional development may be more skeptical of its value than their less knowledgeable peers.

Insufficient financial incentives and a lack of trust were also cited as obstacles but only by non-enrollees. As mentioned earlier, union personnel strongly encouraged teachers to “run the numbers” before enrolling to be reasonably certain that their salaries would be higher under Professional Pay than under steps and lanes, making enrolled teachers less likely to have found insufficient financial rewards a problem. Teachers who do not trust the district to fairly administer the plan and pay short-term rewards would also have little incentive to enroll.

Many teachers cited more than one reason for their lack of active participation. The preceding cases demonstrated some of the ways these reasons interact, making it particularly difficult for the district to increase the attractiveness of active participation.

Surveyed non-enrollees were also asked about factors affecting their decision (Table 5.4), and their responses were generally consistent with interview responses. The most commonly endorsed survey factor was insufficient time but almost as many teachers agreed that a preference for choosing their own professional development affected their decision as well. The other common reason in the interviews, insufficient information, was also endorsed by over half the survey respondents. Concerns that participation would not be financially worthwhile and that the district would renege on promised rewards were much more common among survey respondents than among interviewed teachers.²⁰

²⁰ Survey respondents may have agreed to any factors that seemed reasonable, even if they had not actually been particularly affected by those factors, as they tried to remember back to their initial enrollment decision. This would tend to increase the credibility of the interview responses. Another possibility is that the menu of choices offered in the survey may have jogged respondents’ memories and that survey responses reflect the complexity of their decision-making more accurately than interview responses.

Table 5.4: Surveyed Teachers' Reasons For Non-enrollment

Reason	% Respondents who agree to some extent	% Respondents who agree to a very great extent	Total % Agreeing
Capacity: not professionally worthwhile "I prefer to make my own choices about professional development, rather than taking the classes the district selects for MPPP"	29%	42%	71%
Capacity: insufficient time "I'm already doing as much as I can and couldn't take on one more thing"	29%	47%	75%
Information problems "I don't know enough about the program to be comfortable participating in it"	18%	33%	51%
Not financially worthwhile "The extra money wasn't worth the effort required to earn it"	33%	18%	51%
Lack of trust "I don't believe the district will actually pay us what we have earned"	24%	16%	40%

Teachers' Responses and the Agency Context

If we measure effectiveness in terms of changing teacher behavior, Professional Pay does not appear to be a resounding success. The majority of teachers are not enrolled and almost half of enrollees have not done anything in response to the policy.

These somewhat dismal findings are consistent with the predictions of agency theory. We expect teachers to avoid additional work and professional development is hard work. The rewards embedded within this policy appear insufficient to entice the majority of teachers to even put in the time necessary to earn rewards, never mind the

additional time needed to integrate what they have learned into their practice. While the theory appears to do an adequate job of predicting teacher behavior on the whole, it leaves policy-makers with little to do but throw up their collective hands in despair.

In this section, I propose a series of theoretical elaborations to agency theory that provide an alternative to this despair. Current theory does an adequate job of predicting overall teacher behavior but the assumptions underlying these predictions do not reflect the richness of teachers' rationales. Issues of capacity, information problems, a lack of sufficient incentives, and distrust all appear to be discouraging active enrollment. Incorporating these issues into agency theory in a more nuanced way – rather than treating them as easily ignored assumptions – will provide both policy-makers and theorists with a more useful analytical tool.

Capacity

The first questionable assumption relates to capacity and can be broken into two components, excess effort capacity and excess technical capacity. Agency theory assumes that agents are capable of working harder with no deleterious effects on performance, in other words, that they can increase their effort. Only a few of the teachers interviewed in this study seemed to believe that they were capable of doing more; the vast majority felt that they could not take on another thing. Some teachers related stories of a personal nature, but many recited an exhausting list of professional responsibilities. While respondents may have been inflating their actual obligations, it seems reasonable to assume that at least some honestly believe themselves incapable of working harder. For these teachers to participate in rewarded activities, they would have to give up some of their existing professional activities or the district would have to

provide teachers with release time for additional professional development during the school day.

This brings us to our second component, that of excess technical capacity. The theory assumes that a lack of will is the only obstacle to improvement and that agents possess the skills needed to improve their performance. If this were the case, it would make sense for MPS to pay teachers for outcomes, rather than for participation in targeted professional development. Teachers could then concentrate their efforts on working harder in the classroom, rather than devoting time and energy to ongoing professional development. However, even teachers who are predisposed to reflect policy-makers' goals in their own practice may not have the technical capacity to do so (Ball, 1990b; Cohen, 1990; Cohen & Hill, 2001; Wilson, 1990). As discussed in Chapter 3, MPS recognizes this problem and took steps to address it in the design of the policy but, as we have also seen, building technical capacity is a daunting task the district's efforts have only begun to address.

The district recognizes that technical capacity must be increased in order for the policy to be effective and has tried to do so by tying capacity building programs to rewards. For better or for worse, teachers appear to have their own ideas about increasing their technical capacity and these ideas are not aligned with district offerings. Designing effective professional development opportunities for a diverse group of eligible employees requires an enormous commitment on the part of district implementers and a leap of faith for teachers. Thus far, the district has not been able to commit the needed resources and teachers have been unwilling to embrace the district's choices.

Understanding

Our second questionable assumption is that consistent, complete policy understanding exists. We have seen that many MPS middle school teachers are confused. Some believe that rewards are based on student test scores, others believe that they will be rewarded for activities that do not actually qualify, while still others are unsure about how to take advantage of professional development opportunities. Some teachers realize that they know very little about the policy while others believe that they understand the policy quite well and are passing along their misconceptions to colleagues. None of this is surprising.

Professional Pay is a complicated, evolving policy. While the district and union are making good faith efforts to inform teachers about the policy, they have limited resources to do so. Time and money spent informing teachers about the policy decreases the manpower and funds available for developing high quality professional development offerings and for compensating teachers. In addition, the district's efforts must compete with the cacophony of information that teachers are subjected to each day. On a day when it is entirely possible that a teacher has dealt with an irate parent, two pamphlets from companies selling teacher resources, an excited student with a rather long story to tell, yet another IEP form, and what feels like approximately 57 loudspeaker interruptions during the day, it is understandable if teachers fail to notice the message informing them about a rewarded professional development opportunity or an informational meeting. Teachers are not responding to Professional Pay; they are responding to their understanding of the policy and this is often quite different from the message that policy-makers hope to disseminate.

Financial Motivation

Our third questionable assumption is that money is a strong financial motivator. While agency theory does not dictate the primacy of financial incentives, policy with theoretical roots in agency theory often makes this assumption. The hierarchy of incentives generally assumed in compensation policy places money at or near the top. While teachers do respond to financial incentives, current reward levels do not appear to be effective as a *primary* motivational tool. Only nine interview subjects cite money as a factor in their decision to participate in rewarded activities and only four of these say that it was their primary motivator. While this may be partly attributable to professional norms – teachers may be reluctant to report financial motivation – there is little evidence that money is a particularly powerful motivator for these teachers since so few enrolled respondents have taken steps to earn rewards. They have no qualms about expressing their view of money as a desirable good; it just is not the most important motivator in their professional lives.

Teachers appear more concerned about their students' welfare and their own professional autonomy than about financial rewards, investing time in activities that they believe help them do a better job of teaching. It is possible that the promise of greater student achievement is a necessary, but not sufficient, incentive and that financial rewards must also be part of the package offered to teachers but it is clear that current financial rewards alone are an insufficient incentive for the majority of MPS middle school teachers. While teachers are not immune to financial enticements, their response elasticities may be rather low. It is said that everyone has a price and it is possible that

increasing reward amounts would strengthen teachers' motivation to participate in rewarded activities but the needed amounts may be quite large.

In trying to overcome this obstacle, the district faces a resource allocation nightmare. Given that the state grant which funds the program is a fixed amount and the district has few discretionary funds available to supplement that amount, we can consider the funding appropriation a zero sum game. In order to make the financial rewards greater, the district could reallocate some of the available monies from paying for course development to increasing the amount of rewards. This would, unfortunately, be likely to decrease the quality and quantity of offerings and worsen problems with unattractive learning opportunities.

Trust

Our final questionable assumption is trust. We saw in Chapter 4 that trust is an important component of credible commitment but it appears that trust plays a direct role in some teachers' short-term decision-making as well. Short-term concerns about policy administration and payment of rewards may be more amenable to policy intervention than longer-term credible commitment concerns, however. More complete policy specification may lessen teachers' fears as might more consistent, complete communication. MPS could also place reward money in a "lockbox" controlled by an entity outside the district, such as the union, reassuring teachers that promised rewards will be paid. While measures such as this are unlikely to completely eliminate short-term trust issues, they may alleviate them somewhat.

These elaborations provide policy-makers with a powerful tool to use when designing and modifying policy. Many of the teachers interviewed during this study

appeared to share the district's goal of excellent teaching but were, nevertheless, ignoring this policy. A renewed focus on issues of capacity, understanding, motivation, and trust may help MPS make Professional Pay more attractive to teachers.

As discussed in Chapter 1, there is no perfect teacher compensation system. This does not mean that current initiatives cannot be improved upon or that maintaining the status quo is the only workable choice. It does mean that careful attention must be paid to teachers' responses to any compensation policy, including the status quo. It is also important to look at the rationale underlying teachers' responses. Teachers have legitimate concerns about alternative compensation systems and incorporation of these concerns into our analytical framework will enrich our theoretical and empirical understanding of compensation policy.

Chapter Six

Revisiting Agency Theory

Is Professional Pay “better” than steps and lanes? Will it serve as a catalyst, encouraging teachers to make positive changes to their behavior? There is theoretical and empirical evidence that an ideal teacher compensation system does not exist; each system entails tradeoffs and Professional Pay is no exception.

In this chapter, I focus on the tradeoffs and obstacles that must be faced as MPS implements Professional Pay. First, I review the theoretical predictions introduced in Chapter 1 and elaborated on in Chapter 3. Following that, I summarize empirical evidence supporting or refuting those predictions, unpacking the reasons underlying principals’ and agents’ policy responses. Finally, I revisit agency theory, proposing elaborations that will enrich our understanding of teachers’ responses to compensation systems.

Theoretical Expectations

In Chapter 3, we predicted that teachers would be unwilling to enroll in this voluntary program unless they believed its benefits would outweigh its costs, primarily time and effort. When the theory is operationalized, financial benefits are the primary ones considered, particularly when compensation policy is discussed. We also predicted that enrolled teachers would be active participants, willing to change their behavior in order to earn rewards. This changed behavior would not necessarily be consistent with policy-makers’ goals, but would allow teachers to earn rewards with the least possible additional effort. Generally, we would predict that teachers would tend to avoid taking

on additional work and that they would either avoid responding to the policy altogether or would do so in ways that maximize rewards while minimizing additional effort. These predictions are both quite general and would apply to any deviation from a bureaucratic compensation system.

The remaining predictions were much more closely tied to the details of this particular alternative. Professional Pay is primarily an individual, piece rate, performance-based system. This classification has several implications for agent behavior. Since rewards are based on individual, rather than group, performance, free riding is not a problem. Each teacher has a financial incentive to perform to the best of his or her ability. Unfortunately, teachers have no incentive to help colleagues or devote time to activities that benefit the group rather than themselves. A tournament system would exacerbate this problem, but Professional Pay is piece rate so teachers have no incentive to actually *undermine* colleagues' work – everyone can be a winner. The inclusion of one group performance component – the school-wide achievement award – may also help minimize the tendency of the other rewards to discourage helping behaviors.²¹ Of course, this group performance component may also encourage free riding. If teachers are in high achieving schools, they might not maximize their individual performance, being content to receive the school-wide achievement reward.

The bulk of the rewards are performance-based, giving teachers an incentive to participate in as many rewarded activities as possible. We would predict that enrolled teachers would decrease their participation in non-rewarded activities, substituting

²¹ The district-wide achievement award is also group based but the district is such a large unit (over 4,500 teachers) that individual teachers are unlikely to see either their direct contributions or the contribution attributable to their helping behaviors as impacting the likelihood of earning the reward.

rewarded ones whenever possible. In a true performance-based plan, we would expect to see rewarded behaviors increase as well. For example, teachers might concentrate on items that appeared on an evaluation checklist – at least during the times that a monitor was present. In Professional Pay, incentives to change performance at all are minimal. Performance measures used by the district are largely proxies for actual performance. For the most part, teachers are rewarded for participation, that is, their successful completion of courses; the only outcome that comes close to measuring practice is an action research project. Classroom observations are not included and there is no attempt to monitor long-term application of what was learned. Under this scenario, we would expect teachers to move quickly from one rewarded activity to another, maximizing income while minimizing the effort spent incorporating what was learned into classroom instruction.

The individual, piece rate, performance-based nature of Professional Pay has implications for the principal as well. In a piece rate system, the amount of earned rewards is limited only by the number of rewarded activities offered. It is possible for every MPS teacher to earn a substantially higher salary by rapidly completing rewarded activities. If this occurred, the district could quickly find itself with unsustainably high salary costs. The potential for rising costs provides the district with a strong incentive to exhibit a lack of credible commitment. We would predict the district would limit the availability of rewarded opportunities, minimizing total reward payments. As more teachers participated in rewarded activities and salary costs increased, we would expect the district to consider eliminating or radically restructuring the policy. It is too early in the policy's history for rising costs to encourage elimination or restructuring – salaries

have not increased very much up to this point – but we can test our prediction that rewarded offerings will be scarce.

Empirical Evidence

This section will test the predictions outlined above, using the empirical evidence presented in the preceding chapters. Predictions regarding principal and agent behavior are generally supported by the evidence but the reasons underlying that behavior often look quite different than those suggested by the theory. This has implications for appropriate district action. In this section, evidence concerning district behavior will be presented first, followed by a discussion of teachers' responses.

District Behavior

Agency theory does a reasonably good job predicting principal behavior, although the reasons underlying that behavior are not always consistent with theoretical expectations. We predicted the principal would exhibit a lack of credible commitment. Since rewards are primarily piece rate, we anticipated the principal might try to control salary costs by restricting opportunities to earn rewards and, if salaries rose too high, by restructuring or eliminating the policy altogether. All of these things appear to be happening in MPS.

We anticipate that the principal might try to restrict opportunities to earn rewards, particularly critical skill set and MPSU 1-2-3 rewards. The primary ways for teachers to earn rewards quickly are by participating in critical skill sets and MPSU 1-2-3 courses. While there are other options, such as attainment of advanced degrees, it is highly unlikely that a full-time teacher would be able to earn an advanced degree in a short period of time. The availability of critical skill sets and MPSU 1-2-3 courses is also

under the principal's control. The district cannot prevent teachers from enrolling in university courses but can restrict the availability of critical skill sets and MPSU 1-2-3 courses by limiting the number of offerings and the number of spaces available within each offering. There is evidence that the principal is doing just that.

In year one of the policy, only one rewarded offering, a critical skill set, was available. In the policy's second year, there was again only one rewarded offering – an MPSU 1-2-3 course. The sparse offerings limited the upside potential of teachers' salaries. It appears that restricted space within each offering may be a problem as well. One enrolled teacher has been unable to get into the classes, complaining that, "They had something with a limit so it got filled up right away." In addition, several participants who had taken classes commented that classes filled very quickly; nonparticipants had heard this as well.

It appears that the district is restricting the ability of teachers to earn rewards. What is not entirely clear is if this is a deliberate attempt to hold down salary costs or if it is a by-product of the district's limited capacity to develop and fund a large number of offerings. The implementation team discussed the difficulty they were experiencing in finding time and money to develop courses. The district may not be choosing to restrict offerings; district leaders may desire to offer more but lack the resources to do so. The net result is the same – teachers have few opportunities to earn rewards – but the policy implications of these two underlying reasons are quite different. If the district is deliberately trying to restrict salaries, a movement to a tournament system or a change in the state funding formula might reduce the incentives to limit offerings. If the problem stems from the district's limited capacity to offer professional development, greater

attention to the staffing and funding of professional development might be a more appropriate response.

Our second prediction is that the district might try to eliminate or radically restructure the policy as salary costs rise. We would not expect to see evidence of this so early in the policy's history, yet the future of Professional Pay is already in doubt. The district has no contractual obligation to offer Professional Pay beyond the 2004-2005 school year. Changes in state and local leadership have eroded support for the policy and continued funding beyond the initial grant period is far from certain.

Unlike more tractable problems related to limited offerings, changes to design and funding may have only a limited effect on the district's ability to make a long-term credible commitment to this policy. As discussed in Chapter 4, the political and institutional framework within which public school districts operate may limit their ability to credibly commit. MPS needs financial support from state policy-makers or another source to continue offering Professional Pay. In addition to their *inability* to credibly commit due to factors largely outside of the district's control, current district leadership may also lack the *desire* to do so. As constant personnel changes reduce the number of district leaders with a history of supporting Professional Pay, the policy's persistence becomes increasingly unlikely. District leaders may choose to let the policy quietly join the legions of other educational innovations that appear as bright flashes across the educational landscape, only to die out as quickly as a shooting star (Tyack & Cuban, 1995).

In summary, it appears that our theoretical predictions are correct. After only two years, MPS is exhibiting a lack of credible commitment. In the short-term, access to

rewarded opportunities is restricted while it appears that the policy itself may disappear in the slightly longer term. While our predictions are consistent with observed outcomes, the underlying reasons may not be consistent with the theory of action underlying agency theory. Districts may lack the capacity, rather than the will, to offer teachers a menu of rewarded offerings. In addition, their lack of credible commitment may, at least partially, stem from factors outside of district control, rather than reflecting a deliberate choice.

Let us now compare our predictions of teacher behavior to observed responses.

Teacher Behavior

The ability of agency theory to predict teacher behavior is limited. Our broad expectation that it is difficult to use incentives to change behavior in ways consistent with policy-makers' goals is generally true; however, the assumptions underlying our predictions are often contradicted by the empirical evidence. This is similar to our findings regarding principal response.

Generally, we predicted teachers would tend to avoid taking on additional work; the limited response to this policy is consistent with that. The majority of teachers have chosen to remain on steps and lanes, and almost no enrolled teachers report making meaningful changes to their practice. One possible interpretation of this finding is that teachers will try to avoid the additional work of earning rewards. Some teachers might find the participation rewards insufficient motivation for changing their behavior, choosing not to enroll. Others might enroll and then do the minimum work necessary to earn rewards, rather than embracing the spirit of the policy and using what they have learned to improve their practice. This interpretation is consistent with agency theory.

However, the empirical evidence suggests another possibility. There is evidence that factors other than distaste for work are causing teachers to avoid active participation, including a perceived lack of credible commitment from the district, relatively low interest in financial rewards, valuation of professional autonomy, limited understanding, and a perceived inability to work harder. These other factors dominate teachers' responses, so much so that we are unable to tease out whether distaste for work is an issue as well.

Teachers have little incentive to respond to a policy if they believe the policy will simply disappear if they wait a while. As discussed above, there is evidence that MPS is not credibly committed to Professional Pay. On its own, a lack of credible commitment might not be a problem. Teachers could still be responding to the policy as if credible commitment existed. This does not appear to be the case in MPS, for the vast majority of MPS teachers have doubts about the district's commitment to Professional Pay. Fewer than 15 percent of interviewed teachers believe the policy will still be in place in several years and over half believe the policy will not persist much beyond initial funding period. Surveyed teachers exhibited similar skepticism, with only 27 percent agreeing that the state or district will continue funding Professional Pay after the initial grant period. Only 43 percent believe that Professional Pay will still be offered in five years; the rest believe survival is unlikely. Many of their reasons mirror those mentioned above – teachers believe there is insufficient political will at the state and local levels to sustain the program and that funding constraints are likely to lead to an early demise. A few teachers were even more skeptical. These teachers, discussed in Chapter 5, do not even

believe that the district is credibly committed in the short-term. They did not trust the district to fairly distribute promised rewards during the current period.

A lack of credible commitment gives teachers a strong incentive to avoid responding or to do so in very short term ways since the policy and associated rewards are expected to disappear quickly. Some teachers avoid the policy altogether. Enrolling in the policy requires some work on teachers' part: finding the relevant information, comparing costs to benefits (including calculating their expected salary change), and completing enrollment forms. The shorter the amount of time that teachers expect the policy to persist, the smaller the incentive to devote time to enrollment. The majority of MPS teachers are not enrolled and the perceived lack of credible commitment may be discouraging them from doing so. The role that a perceived lack of credible commitment plays in depressing enrollment may, in turn, increase the likelihood the policy will be seen as a failure and abandoned. As this cycle of policy churn repeats itself, it will become increasingly difficult for MPS to convince teachers that credible commitment exists and that meaningful responses to future policies are worthwhile.

Teachers who choose to enroll may also be skeptical about credible commitment but enroll in order to be rewarded for activities they had already planned to do. This too seems to be occurring; several teachers mentioned enrolling in order to receive financial rewards for participating in professional development they had planned to attend anyway. These teachers are not changing their behavior; they are simply taking advantage of opportunities to be paid for preexisting behavior. The district's long-term commitment is not particularly important to these teachers; they are doing what they already wanted to

do. In this case, financial resources are being allocated inefficiently as teachers are being compensated for continuing current behavior, rather than making desired changes.

Some teachers may be trying to take advantage of short-term rewards but avoiding the work associated with longer term benefits. For example, a teacher might enroll in a critical skill set rather than begin work on an advanced degree. The critical skill set entails less total work than earning a degree. In addition, all the required activities can be completed and the reward earned within a single school year. While the financial rewards are greater for earning an advanced degree, teachers may be concerned that the policy will disappear before they are able to complete the degree and qualify for rewards.²² The evidence supports this – a greater number of teachers were participating in short-term opportunities than longer term ones – but it would be unwise to place too much weight on this finding. The policy is so new that teachers may not have had sufficient opportunity to complete the enrollment process for longer term activities, such as applying to graduate programs.

A perceived lack of credible commitment may be discouraging some teachers from enrolling and dissuading others from changing their behavior in substantive ways. Principals generally assume agents will treat each new idea as a permanent addition to the landscape, yet education policies often come and go. Seasoned teachers know this, having lived through various policy cycles, and novices hear the stories from their more experienced peers (Fuhrman & O'Day, 1996; Hess, 1999; Nieto, 2003). In MPS, many teachers believe Professional Pay will come and go, having no perceptible impact on their

²² While advanced degrees are also rewarded under steps and lanes, the amount of the reward is reduced. Teachers would weigh the likelihood of receiving the larger amount paid under Professional Pay against the smaller amount paid under steps and lanes when making their decisions.

daily lives or their long-term compensation. Thus, it makes sense for teachers to wait on the sidelines as Professional Pay flashes across the sky.

While credible commitment may be a major factor in teachers' muted responses, other factors come into play as well. One is the motivational power of the rewards themselves. Applied agency theory presumes teachers compare expected *financial* rewards to the cost of the behavioral changes necessary to earn those rewards. We predicted that enrolled teachers would believe financial rewards outweighed costs while non-enrolled teachers would come to the opposite conclusion. The evidence generally supports this prediction. Sixty-three percent of non-enrolled survey respondents feel rewards are not worth the effort required to earn them while only 37 percent of enrolled teachers believe rewards are inadequate ($\Phi = -.258, \alpha=.009$).²³ It appears that a comparison of expected rewards and required effort plays a role in the enrollment decision. Enrolling is a relatively low risk decision. Teachers are only committed to Professional Pay for one year and then they can return to steps and lanes. They are not required to take on any additional responsibilities as enrollees. They automatically qualify for school and district performance awards and their only losses are the annual step increases forgone during the enrolled period. For more experienced teachers who are frequently frozen on the steps and lanes schedule, this annual loss does not even come into play. A belief that rewards are a reasonable reflection of increased effort might be sufficient incentive to enroll, since little is lost by enrolling.

²³ Among interviewed teachers who responded to the survey, *active* participants who said money played a role in their decision to participate in a rewarded activity were more likely to disagree with the statement, "The rewards offered under Professional Pay are too small for the work required to earn them," (83 percent compared to 63 percent) than other interviewees. This result is also consistent with our theoretical prediction, but the difference is not statistically significant.

Active participation is a different story. We predicted that enrolled teachers would be active participants, taking steps to earn rewards, but the evidence suggests otherwise. Only 13 out of 23 enrolled interviewees reported participating in any rewarded activities and four of them said that they would have completed the activities whether they were rewarded or not. A favorable reward/effort ratio appears to entice enrollment, but is insufficient, on its own, to convince teachers to participate in rewarded activities. Other priorities appear to be taking precedence over active participation, including teachers' concerns about their ability to increase effort beyond current levels, their reluctance to cede authority over their professional development to the district, and inadequate policy understanding. It does not appear that insufficient reward amounts are the dominant decision factor suppressing active participation, since 63 percent of surveyed enrollees believe that rewards are reasonable in light of required effort.

Enrolled teachers report feeling unable to add additional responsibilities into already crowded schedules. As discussed in Chapter 5, many teachers, both enrolled and non-enrolled, believe current professional and personal obligations make it virtually impossible for them to do more. Half of the inactive enrolled teachers say that they do not have time to participate in any rewarded activities. The agency framework assumes that agents have excess effort capacity, but this assumption appears inconsistent with teachers' perceptions of their ability to work harder.

Given that teachers believe they are already maximizing their effort, we might expect them to eliminate some current activities, freeing up time to earn rewards. We predicted teachers would substitute rewarded activities for unrewarded ones in an effort to minimize effort, even when they were able to increase effort levels; teachers who

believe they cannot increase effort should be even more likely to make these substitutions. The bulk of the empirical evidence does not support this prediction. Teachers are not generally substituting rewarded activities for unrewarded ones. Moreover, they often cite time spent on unrewarded activities as a major obstacle to active participation. When questioned about this, teachers often discuss issues of professional autonomy. Many believe that they, rather than the district, are the best judges of what professional development will help them improve their practice. At current reward levels, teachers are unwilling to surrender their professional autonomy to participate in district choices. While all of the interviewed teachers clearly found money a desirable good, many valued their professional autonomy more. Teachers appear to have a strong preference for activities they feel are professionally worthwhile and promised financial rewards are insufficient to entice them to abandon this preference. Unless MPS can convince teachers that district offerings will help them develop as professionals, many teachers will continue to ignore rewarded offerings. Some teachers may begin returning to steps and lanes in order to qualify for step (experience) increases, further eroding the policy's potential to improve teacher quality.

Limited understanding also appears to be depressing active participation rates. Half of the inactive, but enrolled, teachers cited information problems as a factor in their lack of active participation. The agency framework assumes understanding is complete and consistent but this is not always the case in practice. As former North Carolina Governor James Hunt Jr. notes, "We haven't developed many approaches [to alternative compensation] that are simple enough that people can understand" (Keller, 2004, p. 4). MPS teachers are confused about Professional Pay. Many recognize that they do not

completely understand the policy, but some harbor misconceptions that may be discouraging active participation.

Agency theory assumes teachers are motivated primarily by financial rewards, yet many of the teachers in this study appear to value other goods, including their professional autonomy. While money can be a sufficient inducement for relatively small changes (e.g., enrollment), it rarely motivated study participants to make larger behavioral changes, such as participating in rewarded professional development, not to mention changing their classroom practice. When obstacles such as a lack of time, reluctance to cede professional autonomy, and limited understanding enter the picture, current financial rewards are, by and large, ineffective. Even among the small group of active participants interviewed, only five out of thirteen said money was the primary motivator in their decision. Of the remainder, four saw money as a tipping point in the decision to participate in activities that already interested them. The remainder said that they would have participated regardless of the financial incentives to do so. Unless teachers are comfortable with their policy understanding and believe that a particular offering is consistent with their own professional development agenda, they are unlikely to be swayed by promised financial rewards.

The assumption that money is a primary motivator for changing teacher behavior has been found suspect by other researchers as well. As Johnson (1986) notes:

Although many change agents presume that teachers are motivated by money and are intentionally withholding their best efforts, research suggests otherwise.

Discovering what matters to teachers and how best to motivate them for sustained

and improved work is apparently a complicated puzzle, one that is yet to be solved. (p. 74)

While teacher motivation remains a complicated puzzle, I nominate several factors that may improve the effectiveness of financial motivators. It appears that teachers must believe: that policy-makers are credibly committed to change, that the policy is consistent with their own professional frameworks, that they understand the policy, and that increased effort expectations are reasonable. All of these pieces are not yet in place in MPS, dampening teachers' responses.

Agency theory also leads us to predict that teachers would change their behavior as little as possible in order to earn rewards. We would expect them to do only what is necessary to earn rewards, minimizing changes to practice. Data about classroom practice and teacher quality were not collected. Hence, we cannot carefully examine this prediction here. However, teachers self-reported few significant or sustained changes to their practice. As with our predictions above, it appears that the prediction is correct but that the underlying rationale may not hold true in this study. Agency theory predicts minimal behavioral changes because of a distaste for additional work – change is difficult and teachers would be expected to avoid it. While this may very well be true, it is difficult to test in our case because of the policy particulars. Agency theory assumes that excess technical capacity exists. MPS recognizes that this is often not true for the district's teachers, so the district incorporated capacity building activities into the reward structure. Despite their efforts, these activities may still be insufficient to build technical capacity. Short-term professional development opportunities may not provide teachers with sufficient opportunity to learn how to behave in desired ways. Since we are not sure

that teachers know how to change in the desired ways, it is impossible to determine whether the minimal changes they report are due to reluctance to change or the inability to do so. Indeed, research on the limited effectiveness of traditional professional development would suggest that teachers did not have sufficient opportunity to learn (Cohen & Hill, 2001; Fullan, 1991; Hawley & Valli, 1999).

Agency theory also predicted teachers would move quickly from one rewarded activity to another in order to maximize rewards. Given that only two rewarded professional development opportunities were offered during the two year period of this study, it was impossible to test this hypothesis.

We also predicted that the individual nature of the rewards might lead to a decrease in helping behaviors. Several interviewed teachers expressed concerns about this, but no one was able to supply examples. The policy is so new and so few teachers appear to be actively responding to it that the lack of evidence to support this prediction is not surprising. As the policy matures and more teachers become involved, it would be worthwhile for future studies to revisit this prediction.

MPS has offered teachers a thoughtfully designed alternative to steps and lanes yet Professional Pay's effectiveness has been limited. The district's commitment appears weak and teachers know it. In response, many are ignoring the policy. Even those who express their interest by enrolling are discouraged from actively participating by their perceived inability to work harder, skepticism regarding the district's efforts to build technical capacity, and limited (mis)understanding. Unless steps are taken to address these problems, Professional Pay may evaporate. While our theoretically-based predictions are generally supported by empirical evidence, the rationale underlying these

predictions is incomplete. Teachers may very well have a distaste for work – a fundamental assumption of agency theory – but the other factors discussed above are clearly affecting their behavior as well. We will return to these factors in the next section, when elaborations to the theory are discussed.

Revisiting Agency Theory:

Towards a More Sophisticated Understanding of Teacher Response

Agency theory generally does an adequate job predicting principal and agent response but, in its current form, does an inadequate job of explaining the rationale underlying those responses. This limits the theory's usefulness both as a conceptual framework and as a tool policymakers can deploy when designing and implementing compensation policy. I propose several elaborations to the theory in its current form, including a greater focus on the impact credible commitment has on principal and agent behavior, explicit attention to issues of understanding, relaxation of the excess capacity assumption, and greater attention to the role non-pecuniary factors, such as professionalism, play in decision-making. These elaborations will enhance our understanding of the complex interplay of factors affecting principals' and agents' decision-making.

Agency theory tends to focus narrowly on reward/effort ratios and agents' distaste for work. These are not trivial factors. Agents do appear to consider the work required to earn rewards when making decisions and there is no evidence that they will seek out additional work unless there are rewards – intrinsic or extrinsic – attached to that work. The changes I propose are not inconsistent with these factors but are designed to place

them within a broader set of considerations – considerations that appear to affect behavior as well.

Credible commitment has received some attention in the literature, but is often couched in terms of the principal's incentive to behave in ways that are inconsistent with credible commitment. The ability of public agencies to make a credible commitment, even if they desire to do so, has not been explicitly considered. In addition, the effect that a perceived lack of credible commitment has on agent response has been largely ignored.²⁴ Greater attention to critical commitment's implications within the agency framework may improve our ability to predict and explain principal and agent behavior while deepening our understanding of underlying reasons. In addition to its theoretical implications, credible commitment has practical ramifications as well. Policy-makers promoting alternative compensation often base their arguments on neoclassical economic theory and many of their arguments resonate with a simplified version of agency theory. It appears that credible commitment may be a fundamental challenge faced by public agencies as they attempt to design and implement alternative compensation policy, yet policy-makers often seem unaware that credible commitment is even an issue, never mind a potentially intractable dilemma. Giving greater theoretical prominence to credible commitment may encourage them to consider its implications when they design and implement policy.

The second proposed elaboration is more explicit attention to issues of understanding. Some compensation policies, such as bureaucratic systems and bonuses based on absolute student test scores, are relatively straightforward. Others, such as

²⁴ Miller's (1992) and North and Weingast's (1989) work are notable exceptions.

Professional Pay, are complicated. Simple is not always better. It is difficult to use bureaucratic systems as a tool for improving teacher quality while bonuses based on absolute student test scores introduce issues of fairness, among other problems. That said, designing a complex policy in an attempt to minimize the problems of simpler systems introduces a new problem – that of limited understanding. Rather than assuming understanding is complete and consistent, agency theorists could explicitly model the costs associated with the uncertainty introduced by more complex systems, particularly when those systems are relatively new. This approach might prove more fruitful than simply ignoring the issue or restricting study to relatively straightforward empirical examples. As with credible commitment, a greater focus on issues of understanding could also help policymakers as they seek to minimize undesirable outcomes attached to compensation policy. Policy-makers would have a tool that explicitly recognizes the tradeoffs involved as we move from simplicity to complexity. More complex systems may avoid some of the perverse incentives embedded in simpler ones but are likely to increase the problem of limited understanding. Including issues of understanding in the decision matrix will encourage policy-makers to broaden the range of considered factors.

I also propose a relaxation of the assumption that agents possess excess capacity. It is generally assumed that agents have the ability to work harder, smarter, or both. This may not be the case. At times, agents may believe that they are incapable of working harder. They might be right. When this occurs, agents may require a very large financial incentive to increase their efforts. An alternative would be redirecting existing efforts rather than asking agents to increase them. For example, MPS could use substitutes to free up teacher time during the school day, allowing teachers to work on rewarded

professional development without increasing their effort levels. Relaxing the assumption that agents are capable of increasing their effort levels allows both theorists and policy-makers to explicitly consider tradeoffs between attempts at increasing total effort levels and encouraging agents to substitute desired activities for other activities they already participate in.

Agency theorists also assume agents are capable of working smarter – that they possess the skills needed to do a better job. We have seen that this is not always the case. For example, teachers may need to learn how to improve student achievement before they are able to do so. Recognizing this, policy-makers in Minneapolis made professional development the cornerstone of their new compensation policy. Rather than assuming excess technical capacity exists in the system, agency theory could recognize technical capacity as a potential constraint. This would allow theorists to include the cost associated with increasing technical capacity in their models and would encourage policy-makers to consider the possibility that technical capacity might be a limiting factor in their plans.

The final elaboration I propose is greater attention to the role non-pecuniary factors such as professionalism play in agent behavior. Current theory recognizes that money is not the only factor in agent behavior. Distaste for work is recognized as a factor and other considerations such as geographic preference and valuing leisure time are often included as well. It is assumed that financial rewards can and should be used to entice agents to ignore these other factors. It is also generally assumed that financial inducements, rather than other incentives, are the most fruitful way to change behavior. Financial rewards certainly play a role in decisions but other factors may be at least as

important as money for some agents. This appears to be the case with teachers who enrolled in Professional Pay but then chose not to participate in rewarded activities. Many of these teachers cited concerns about professional autonomy and the ability of the district to present them with appropriate professional development opportunities. Treating money as the most important motivational tool may be discouraging theorists and policy-makers from giving adequate attention to these other factors, some of which could conceivably offer a more cost effective way to change behavior. In this study, teachers' perceptions of the policy's impact on their professional autonomy played a major role in their responses. Broadening the range of potential motivators to include factors such as professional autonomy would recognize the role of these other motivators, allowing theorists and policy-makers to consider the interactions among them and relative costs associated with their manipulation in their work. For example, it might be more cost effective to focus a larger share of resources on improving the quality and diversity of rewarded offerings, minimizing teacher's concerns about professional autonomy, rather than increasing the amount of rewards.

All of these proposed changes - a greater focus on credible commitment's impact on principal and agent behavior, explicit attention to issues of understanding, relaxation of the excess capacity assumption, and greater attention to the role non-pecuniary factors, such as professionalism, play in decision-making – are elaborations to the existing agency framework. They do not question the basic theory of action underlying the theory, but rather allow for a more nuanced understanding of the likely responses of principals and agents. Fully incorporating these additional considerations into the existing framework will improve agency theory's theoretical and applied utility, assisting

researchers and policy-makers as they strive to fit together the pieces of the compensation puzzle.

Appendix I

Instruments

Teacher Interview Protocol

Demographics and background

Q1: I'd like to begin by asking you a little about your background in teaching.

How long have you been a teacher?

How long have you been teaching at this school?

Have you taught at other schools in the district? For how long?

Have you taught in districts other than Minneapolis? For how long?

Q2: Outside of anything that you did because of the plan, what kinds of things do you do to improve your teaching?

Prompts: How about courses?

How about professional development workshops?

How about professional reading about teaching or about (insert name of subject taught)?

Teacher's knowledge about the professional pay plan

Q3: Can you please tell me what you know about the MPS professional pay plan?

Prompts: What do you know about receiving additional pay for certain types of professional development such as critical skill sets (Improving Instruction through Analysis of the Data) and MPS 1-2-3?

What do you know about receiving additional pay for credits towards advanced degrees?

What do you know about the quality performance awards available if your school or the district meet improvement goals?

Does this plan or any parts of the plan remind you of any other policies in this district or in any other districts you've worked for?

Q4: Why do you think the district decided to offer this plan?

Prompts: Which groups or individuals have played a critical role in developing and implementing the plan (ex. union, superintendent, administrators, teachers)?

Why do you think the union decided to work with the district in designing the plan?

Teacher's participation in and assessment of the plan

Q5: Next I'd like to talk to you about participation in the plan. Are you a participant?

Q6 if answer is Yes: Why did you decide to participate?

Prompts: Did you talk to your colleagues or anyone else when you were trying to decide?

Was there a part of the plan that caught your attention?

Was there anything specific about this school or your situation that made the plan attractive?

Q6a if answer is Yes: Please tell me about what you've done so far as a plan participant and what you plan to do in the next year or so?

Prompts: Can you tell me about one specific activity that you have engaged in because of the plan and how, if at all, it has affected your classroom teaching?

Are there any other things you have done because of the plan?

How is that different from what you would have done without the plan?

Q6 if answer is No: Why did you decide against participation?

Prompts: Did you talk to your colleagues or anyone else when you were trying to decide?

Was there a part of the plan that caught your attention?

Was there anything specific about this school or your situation that made the plan unattractive?

Q7: Do you see any changes in the school or in your colleagues as a result of the plan?

Prompts: Have you noticed teachers paying more or less attention to certain aspects of their teaching as a result of the plan?

Have any teachers tried to change their assignment as a result of the plan?

Have they done anything else that they think might make it easier to qualify for rewards?

Is there anything else that changed in the school as a result of the plan?

Q8: What is your professional and personal opinion of the plan?

Prompts: What positive consequences could this plan have for teachers?

How about negative consequences?

What positive consequences could this plan have for students?

How about negative consequences?

Do you think the plan rewards things that are reasonable measures of teacher quality?

Do you think there are any ways that a teacher could make more money under this plan without actually improving their teaching?

Do you think it's easier or harder for certain teachers or for the teachers in certain schools to qualify for rewards?

On balance, will this plan have a negative or positive impact on teaching?

Q9: Is there anything in the pay plan that would make you reconsider teaching? Are there any aspects of a non-teaching job, such as sales, that now look more attractive to you? Unattractive to you?

Q10: What do you think the plan will look like in a few years? How about in a longer period of time – let's say 10 years?

Prompts: What about the state funding? Will that still be the same?

Teacher's relationships with district and school personnel

Q11: Now I'd like to talk about your school and the school community. Would you please tell me about a typical interaction with a colleague – whether in a formal setting such as a school committee or informally?

Prompts: Have you been satisfied with your interactions with colleagues?

Are there any other kinds of interactions that you would like to have?

Are there any that you would prefer not to have?

How often does your team get together?

Is this similar to or different from other teams in the school?

Q11a: Does the new system give you any reasons to behave differently with colleagues or have you noticed any changes since Professional Pay started?

Q12: Please tell me about a time that you asked your principal for help with something – instruction, discipline, etc. – and how that worked out.

Prompts: Is that typical of your interactions with the principal?

Are you satisfied with the kinds of interactions you have with your principal and how frequently they occur?

Do you think your experience is typical of most teacher/principal interactions?

If the principal wound up doing any sort of evaluation for pay at some point in the plan, how would you feel about that?

Q12a: Does the new system give you any reasons to behave differently with the principal or have you noticed your colleagues behaving differently with the principal since Professional Pay started?

Q13: How often have you interacted with central office? Please tell me about your experiences.

Prompts: What are the different types (curriculum, special ed. questions, payroll, health insurance, etc.) of interactions you have had?

Have the people in central office generally been positive and helpful or have your experiences been somewhat frustrating?

Do district policies on things like testing and attendance affect you in the classroom? Why or why not?

Are policies usually helpful or do they interfere with your teaching? Can you please give a specific example?

Are these policies pretty stable or do they change frequently? Do they tend to complement each other or do different policies contradict each other?

If central office wound up doing any sort of evaluation for pay at some point in the plan, how would you feel about that? Do you think it would be done so that it was fair to all schools?

Q13a: Does the new system give you any reasons to change your interactions with central office?

Principal Interview Protocol

Demographics

Q1: I'd like to begin by asking you a little about your background.

How long have you been a principal?

How long have you been principal at this school?

Have you been the principal or assistant principal at any other schools? Where and for how long?

Have you ever been a teacher? Where and for how long?

Principal's knowledge about and assessment of the professional pay plan

Q2: Can you please tell me what you know about the MPS professional pay plan?

Prompts: What do you know about receiving additional pay for certain types of professional development such as critical skill sets (Improving Instruction through Analysis of the Data) and MPS 1-2-3?

What do you know about receiving additional pay for credits towards advanced degrees?

What do you know about the quality performance awards available if your school or the district meet improvement goals?

Does this plan or any parts of the plan remind you of any other policies in this district or in any other districts you've worked for?

Q3: Why do you think the district decided to offer this plan?

Prompts: Which groups or individuals have played a critical role in developing and implementing the plan (ex. union, superintendent, administrators, teachers)?

Why do you think the union decided to work with the district in designing the plan?

Q3a: What is your opinion of the plan?

Prompts: What positive consequences could this plan have for teachers?

How about negative consequences?

What positive consequences could this plan have for students?

How about negative consequences?

Do you think the plan rewards things that are reasonable measures of teacher quality?

Do you think there are any ways that a teacher could make more money under this plan without actually improving their teaching?

Do you think it's easier or harder for certain teachers or for the teachers in certain schools to qualify for rewards?

Q4: Next I'd like to talk to you about the ways that the plan has affected your work and your school. Roughly what proportion of your teachers decided to participate in the plan?

Did you notice any patterns among participants (e.g., more or less experienced teachers, teachers who have always been active, your "stars", certain departments, etc.)?

Q5: Did any of the teachers talk to you about the plan when they were making their decision?

Prompts: What were some of their comments and questions?

What kinds of information were you able to give them?

If you were unable to help a teacher, who were you likely to refer them to next?

Q6: Please tell me about some of the activities that your participating teachers have been a part of

Prompts: Have you noticed any changes in their teaching? If so, can you tell me about those?

Can you tell me about one specific change that you have heard about or observed in the school or in a particular teacher's classroom?

How do you think, if at all, that would have been different without the plan?

Principal's relationships with district and school personnel

Q7: Now I'd like to talk about your school and the school community. Would you please tell me about a typical interaction with one of your teachers – whether in a formal setting such as a school committee or informally?

Prompts: Are you satisfied with your interactions with teachers in this school?

Are there any other kinds of interactions that you would like to have?

Are there any that you would prefer not to have?

Do you think the plan will affect your interactions with teachers?

If the plan was modified so that you did evaluations, how would you feel about that?

Q8: How often do you interact with central office? Please tell me about your experiences.

Prompts: What are the different types (school issues such as budget, testing schedules and personal issues such as payroll or health insurance questions) of interactions you have had?

Have the people in central office generally been positive and helpful or have your experiences been somewhat frustrating?

Do you ever act as a “go-between” for one of your teachers and central office personnel? If so, can you tell me about that?

Do district policies on things like testing and attendance affect your ability to do your job? If so, how? If not, why is that?

Are policies usually helpful or do they interfere with your ability to be an effective school leader? Can you please give a specific example?

Are district policies pretty stable or do they change frequently? Do they tend to complement each other or do different policies contradict each other?

If central office ever began to do teacher evaluation under the plan, how would you feel about that?

Q9: I’m interested in how your teachers are perceived by others, particularly parents. Would you please provide me with a list of your teachers that characterizes the parental requests for each teacher in one of three categories: more than can be accommodated, roughly equal to the number that can be accommodated, and fewer than can be accommodated.

District Personnel Interview Protocol

Q1: I'd like to begin by asking you a little about your involvement with professional pay.

What is your position in the district?

How long have you been involved with the professional pay initiative?

How much of your working time do you spend on matters related to professional pay?

What are your responsibilities related to the professional pay plan?

What other types of responsibilities do you have?

Development of the Plan

Q2: What groups or individuals have been involved in the development of the plan?

Prompts: What did the legislature do?

What did the superintendent do?

I understand there is a new superintendent. Has this had any effect on the policy?

What did other district administrators do?

Has this changed over time?

What role the union played?

Has this changed over time?

What about teachers? Who was involved and what have they done?

Has this changed over time?

What about school administrators?

Has this changed over time?

Who else has been involved and what have they done?

Has this changed over time?

The Current Plan

Q3: It seems like the plan has been evolving. From your perspective, what are the plan's core ideas?

Q4: Of the various plan components (MPSU, extended professional responsibility compensation, etc), which do you feel are most critical?

Q5: Which of the plan components are well developed at this time? Which are works in progress?

Q6: Can you please tell me what you know about planned MPS professional pay plan components for this year?

Prompts: What are the plans regarding critical skill sets offerings this year?

How about MPSU?

How are the critical skill set and MPSU offerings selected? By whom?

Is the district planning to offer additional pay for credits towards certain advanced degrees and NBPTS certification?

How about the district and school quality performance awards?

Are there any plans to introduce extended professional responsibility compensation this year?

Communication of the Plan

Q7: What are some of the opportunities that teachers have had to learn about professional pay?

Prompts: What materials, if any, have been sent to the schools?

To teacher's homes?

Has the plan been explained/advertised/promoted during any district functions (workshops, etc.) that teachers attend?

How many presentations has the professional pay team made to schools?

How are these visits generally set up (are you invited and by whom, is the school administrator involved, are they outside of regular staff meetings or during that time, etc.)?

What other kinds of things has the district done to spread the word about the professional pay website?

What kinds of things has the union done to inform teachers about professional pay?

Q8: I have downloaded the literature on professional pay that is available on the website. Where could I find copies of any other literature on professional pay that has been made available to teachers and school union representatives?

Q9: When you have personally talked to teachers about professional pay, what's your sense of their take on the plan?

Prompts: What parts of the plan seem clear to them?

Unclear?

Are there any common misconceptions that teachers seem to have about the plan?

What parts of the plan do they tend to agree with?

What concerns do they commonly express?

Early Implementation and Impact of the Plan

Q10: My understanding is that around 1,700 teachers are currently signed up for the plan. From your perspective, are there certain groups of teachers that are more or less likely to participate than others?

Prompts: Why do you think these groups are more/less likely to participate?

Q11: Did any of the teachers talk to you about the plan when they were making their decision?

Prompts: What were some of their comments and questions?

What kinds of things did you talk about?

What kinds of questions did they ask?

What kinds of information did they want?

Q12: From your perspective, how is this plan currently working?

Prompts: What positive consequences could this plan have for teachers?

How about negative consequences?

What positive consequences could this plan have for students?

How about negative consequences?

Do you think the plan rewards things that are reasonable measures of teacher quality?

Do you think there are any ways that a teacher could make more money under this plan without actually improving their teaching?

Do you think it's easier or harder for certain teachers or for the teachers in certain schools to qualify for rewards?

The District Policy Environment

Q13: Before I leave, I'd like to ask you a few questions about the district and the larger context. Are there any other policy initiatives going on in the district right now?

Prompts: Can you tell me about them?

Do district policies usually remain stable, evolve over time, or come and go?

Do these policies generally complement or contradict each other?

Can you please tell me about an example of this?

Do district policies tend to help or hinder teachers in their work?

What set of policies would illustrate this?

Is there anything else?

Q14: Can you tell me a little about the history of district policies related to teacher quality issues?

Prompts: What about PDP's?

Where did policies such as the PDP come from?

What impact do these policies seem to be having now?

How does professional pay fit into the district's overall plan for teacher professional development (PDP's, district and other local professional development offerings, etc.)?

Are there any other district policies that might have implications for professional pay?

Q15: Can you tell me a little about the union's involvement in policies and the relationship between the district and the union in creating and implementing policy?

Q16: I understand that there has been a leadership change and that you have an interim superintendent. How has this affected the design and implementation of policies? How has it affected professional pay?

Q17: Is there anything else I should have asked you to help me understand this plan and how it is being implemented?

Survey Instrument

A Survey for The Minneapolis Professional Pay Plan: The Teacher's View

As a middle school teacher or other licensed employee, you are invited to participate in a research project investigating teachers' reactions to the Minneapolis Professional Pay Plan and the ways that their reactions are shaped by their interactions with other people in the system. The results of this study will provide important information to school districts and states that are trying to develop Professional Pay plans as well as help Minneapolis public school district and union personnel improve the current plan.

You can help by completing this Web-based survey questionnaire. The questionnaire should take about 20 minutes to complete and both Professional Pay Plan participants and non-participants are encouraged to respond. To encourage your participation, surveys returned by June 12, 2004 will be entered in a drawing for a \$50 Barnes and Noble gift certificate.

The purpose of the survey is to gather information about how teachers are responding to the plan and what kinds of relationships they have with other people in the system. Your input about your experiences will provide direction for plan designers and implementers.

Your participation in this survey is entirely voluntary. You are under no obligation to participate and, if you choose not to participate, no penalties will occur. If any of the

questions make you uncomfortable, you may discontinue participation in the study at any time without penalty.

Though this survey is coded so that we can identify you (to avoid sending reminders to those who have responded and identify the gift certificate winner), no one outside of our research team will ever have access to the codes or your responses. This research is conducted under stringent university and U.S. government regulations governing confidentiality procedures. All data collected will be securely stored. Only researchers working with the study, all of whom are bound to maintain confidentiality, will have access to study data. Results of the study will be reported in such a way that individuals cannot be identified. Your privacy will be protected to the maximum extent allowable by law.

For questions about this study, you may call Dr. Suzanne M. Wilson, Principal Investigator at 517-353-9150 or email swilson@msu.edu. If you have any questions about the protection of human subjects of research, please call Peter Vasilenko, Ph.D., Chair of the University Committee on Research Involving Human Subjects, Michigan State University at 517-355-2180 or email ucrihs@msu.edu.

Sincerely,

Debbi Harris

Research Associate

d-and-z@juno.com

1. To begin, please enter the five digit id number that was sent to you in your e-mail notification. If you have any problems logging in, please contact Debbi Harris at d-and-z@juno.com.

Logon ID Number: _____

Next click the “next” button to go to the first question of the survey.

Thank you for your participation!

Section 1: About Your Experiences With Professional Pay

2. Please indicate the degree to which you agree with each statement below.

	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
Overall, the Professional Pay plan will have positive consequences for <i>teachers</i> .	1	2	3	4
The Professional Pay plan rewards things that are reasonable measures of teacher quality.	1	2	3	4
The rewards offered under Professional Pay are too small for the work required to earn them.	1	2	3	4
The harder teachers work, the more they will earn under Professional Pay.	1	2	3	4
Professional Pay encourages participating teachers to work together towards common goals.	1	2	3	4
Professional Pay interferes with teachers' professional autonomy and judgment.	1	2	3	4
Professional Pay encourages participating teachers to compete with each other for rewards.	1	2	3	4
Teachers who participate in professional development opportunities under Professional Pay will become better teachers because of the knowledge they gain in the workshops.	1	2	3	4

Teachers who participate in professional development opportunities under Professional Pay will become better teachers because of the action research requirement.	1	2	3	4
Teachers who participate in professional development opportunities under Professional Pay will become better teachers because the plan requires them to reflect on their practice.	1	2	3	4
Overall, the students of teachers who participate in Professional Pay will be better off than they would have been if their teachers had decided not to participate.	1	2	3	4
3. Please indicate the degree to which you agree with each statement below.				
The district should continue to offer Professional Pay.	1	2	3	4
The introduction of Professional Pay has made it more likely that I will remain with the MPS.	1	2	3	4
It is easier for teachers of core subjects (math, language arts, science, and social studies) to earn rewards under Professional Pay.	1	2	3	4
It is easier for teachers of high achieving students to earn rewards under Professional Pay.	1	2	3	4

Teachers in our school have as much chance of receiving rewards from Professional Pay as any other teachers.	1	2	3	4
Teachers in schools that increase student achievement should receive a Professional Pay bonus.	1	2	3	4
Overall, I am satisfied with the Professional Pay plan.	1	2	3	4
The district will still be offering Professional Pay in five years.	1	2	3	4
The <i>district</i> will continue funding Professional Pay after the initial state grant runs out.	1	2	3	4
The <i>state</i> will continue to fund Professional Pay after the initial grant runs out.	1	2	3	4

4. Please indicate whether you believe each of the following statements is true.

	True	False
Professional Pay pays teachers more if they earn advanced degrees.	1	2
Under Professional Pay, teachers receive additional pay for <i>all</i> the professional development that they participate in.	1	2
Professional Pay pays teachers more if their students score well on tests.	1	2
Professional Pay pays teachers more if they take on responsibilities outside of teaching (i.e., testing coordinator).	1	2

Only certain district professional development opportunities qualify for professional pay. 1 2

Teachers must demonstrate that they use what they have learned in their classrooms in order to receive professional pay for workshops. 1 2

Some teachers who participate in Professional Pay may make less money than they did before. 1 2

5. Please indicate the degree to which you agree with each statement below.

Completely Disagree 1 2 3 4
Generally Disagree
Generally Agree
Completely Agree

Teachers should receive Professional Pay for Critical Skill Sets such as "Improving Instruction through Analysis of the Data." 1 2 3 4

Teachers should receive Professional Pay for MPSU 1-2-3 classes such as "ENVoy™" 1 2 3 4

Teachers should receive Professional Pay when the school or district meets their quality performance goals. 1 2 3 4

Teachers should receive Professional Pay for college credits and advanced degrees. 1 2 3 4

Teachers should receive Professional Pay for extended professional responsibility such as being PDP coordinators. 1 2 3 4

Teachers should receive Professional Pay for *all* of the professional development opportunities in which they participate.

1 2 3 4

6. Are you currently participating in the Professional Pay Plan?
(Please note that you will automatically be redirected to relevant sections of the survey, depending on your participation status.)

Yes _____ No _____

7. For Participants: Please indicate the degree to which you agree with each statement below.

Completely Disagree
Generally Disagree
Generally Agree
Completely Agree

I will continue using the skills I have learned through the Professional Pay Plan after the program requirements are fulfilled.

1 2 3 4

If the reward component of Professional Pay was eliminated, I would still participate in the professional development offerings.

1 2 3 4

I would work just as hard on my own professional development even without Professional Pay.

1 2 3 4

I am more likely to take a class that qualifies for Professional Pay than I would have been to take that same class if it did not qualify for rewards.

1 2 3 4

8. For Participants: In response to professional pay, to what extent have you or do you plan to (within the next year):

	Not at All	To a Small Extent	To Some Extent	To a Very Great Extent
Engage in professional development activities that qualify for professional pay?	1	2	3	4
Change the way you teach (your teaching methods)?	1	2	3	4
Focus your teaching more on those aspects of student learning related to the quality performance awards available if your school or the district meet improvement goals?	1	2	3	4
Take university coursework?	1	2	3	4
Decrease your participation in professional development activities that do not qualify for professional pay?	1	2	3	4

9. For Participants: To what extent did each of the following affect your decision to participate in MPPP?

	Not At All	To a Small Extent	To Some Extent	To a Very Great Extent
The chance to earn extra money was a major motivator.	1	2	3	4
I was already doing the rewarded activities anyway and this gave me a chance to get paid for what I was already doing.	1	2	3	4

My union representative encouraged me to participate.	1	2	3	4
I wanted to support the program because I believe it will help increase the quality of Minneapolis' teachers.	1	2	3	4
My colleagues had good things to say about the program.	1	2	3	4
I trust the district to offer programs that will help me develop my professional skills.	1	2	3	4
MPPP gives me the opportunity to attend free, high quality professional development.	1	2	3	4

10. For Participants: If there are any other factors that affected your decision to participate, please describe them in the box below.

11. For Non-participants: To what extent did each of the following affect your decision not to participate in MPPP?	Not At All	To a Small Extent	To Some Extent	To a Very Great Extent
The extra money wasn't worth the effort required to earn it.	1	2	3	4
I don't believe that the district will actually pay us what we have earned.	1	2	3	4
I'm already doing as much as I can and couldn't take on one more thing.	1	2	3	4

I prefer to make my own choices about professional development, rather than taking the classes the district selects for MPPP.	1	2	3	4
MPPP won't be around long enough for it to be worth doing the things that are required to earn extra money.	1	2	3	4
I don't know enough about the program to feel comfortable participating in it.	1	2	3	4
Trusted colleagues had negative things to say about the program.	1	2	3	4
My union representative discouraged me from participating.	1	2	3	4

12. If there are any other factors that affected your decision not to participate, please describe them in the box below.

Section 2. About Your Experiences with Colleagues and School Administrators

13. Please indicate the degree to which you agree with each statement below.

	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
There is a great deal of cooperative effort among staff members in my school.	1	2	3	4
You can count on most staff members to help out even though it may not be part of their official assignment.	1	2	3	4
There is a great deal of trust among the teachers in this school.	1	2	3	4

We have a good idea of each other's teaching goals and classroom practices.	1	2	3	4
Teachers in this school are constantly learning and seeking new ideas.	1	2	3	4
I feel supported by colleagues to try out new ideas.	1	2	3	4
The principal deals effectively with pressures from outside the school that might interfere with my teaching.	1	2	3	4
The school administrator's behavior toward the staff is supportive and encouraging.	1	2	3	4
The school's administrators understand the problems faced by the staff.	1	2	3	4
The principal lets staff members know what is expected of them.	1	2	3	4
Staff members are recognized for a job well done.	1	2	3	4
The school administrators treat all the teachers in a fair, evenhanded way.	1	2	3	4
The principal sets priorities, makes plans, and sees that they are carried out.	1	2	3	4

Section 3: About Your Experiences With District Personnel and Policies

14. Please indicate the degree to which you agree with each statement below.

	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
I would accept almost any class or school assignment in order to keep working for this district.	1	2	3	4
When I need help with something, the TOSA's are willing and able to help.	1	2	3	4
District human resource personnel are helpful and cordial when I ask for assistance.	1	2	3	4
I trust district personnel to implement Professional Pay in a fair, evenhanded manner.	1	2	3	4
Often I find it difficult to agree with this district's policies on important matters relating to its teachers.	1	2	3	4
I often have to ignore district policies in order to do what I think needs to be done for my students.	1	2	3	4
Different district policies often send mixed messages about what teachers should do.	1	2	3	4
District policies remain stable over time.	1	2	3	4

The district is a source of considerable satisfaction with my teaching job.	1	2	3	4
The district has clear goals that remain consistent over time.	1	2	3	4

Section 4: Background Information

15. What is your total number of years of teaching experience?

16. How many years have you taught in MPS?

17. How many years have you taught in this school?

18. What subject(s) and grade level(s) do you teach this year?

19. Are you: a. Female ☐ b. Male ☐

20. If you have any other comments or observations that you would like to make regarding professional pay, please make them in the space below.

Thank you completing the survey. You are now entered in the drawing for the \$50 Barnes and Noble gift certificate. If you would like to make any additional comments, please e-mail me at d-and-z@juno.com

Appendix II

A Rasch Analysis of Three Measures of Teacher Perception:

Administrators, Colleagues, and District

Three variables are constructed for use in secondary data analysis: Perception of Administrators, Perception of Colleagues, and Perception of District. Data for each of the new variables is scaled using a Rasch Rating Scale Model (RRSM). This model estimates the logit value of a respondent (θ_n) responding with a category that requires exceeding k category thresholds (τ_k) versus $k-1$ to an item (δ_i) as a linear function of three parameters that locate the respondent, item, and category threshold onto the same underlying continuum,

$$\ln \left(\frac{\pi_{nik}}{\pi_{nik} - 1} \right) = \theta_n - \delta_i - \tau_k .$$

Parameters for this model are estimated using joint maximum likelihood estimation procedures as implemented in *Winsteps* (Linacre, 2002b; Wright & Masters, 1982). For the three variables under consideration, the respondent measure refers to the individual's tendency to endorse items as being descriptions of their perceptions of school administrators, colleagues, and the district. The item calibration refers to the difficulty of endorsing a particular item, and the threshold calibration refers to the difficulty of assigning a rating of k versus $k - 1$ on the rating scale in question. Standard errors for these estimates are also estimated (e.g., SE_{θ}), and the mean of the square of these standard errors is the mean squared error of the data from the RRSM (MSE_{θ} , for example).

When all the ratings for a person are at the extreme ends of the rating scale, raw scores are adjusted by adding or subtracting 0.3 raw points to the zero or maximum score to allow for estimation using the maximum likelihood procedure. For the Perception of Administrators, Perception of Colleagues, and Perception of District variables, these adjustments are made 10, 4, and 2 times, respectively. In the first two cases, all of the adjustments are based on perfect positive responses. In the Perception of District variable, the adjustments are based on perfect negative responses.

For ease of interpretation, the scaled variables are linearly transformed to a Z-scale. These transformed variables are then used in the survey analysis.

The Rasch Analysis

A Rasch analysis is conducted on the three constructed perception variables: Perception of Administrators, Perception of Colleagues, and Perception of District. The quality of the measures for the three scaled variables is examined on the following dimensions: dimensionality, item quality, effectiveness of rating scale, item hierarchy, and quality of measures.

Dimensionality

Principal component analysis of the residuals from the RRSN is used to look for evidence of unidimensionality. Specifically, the eigenvalues for the first factor should account for a substantial amount of the total variance. The scree plot is also examined. The plot will asymptote or form an elbow just after the last factor. Factor loadings are also used to determine if a factor substantially influences the response to each item. Items with absolute loadings above .4 are considered meaningfully large. When evidence

of multidimensionality exists, large factor loadings on the first factor indicate a dominance of that factor.

Reliability

Reliability of separation, or the consistency of the rank order of variable estimates with repeated sampling, is examined. There is no agreed upon cutoff for reliability of separation and the consequences of the rankings for individuals should be considered when establishing a cutoff score. For low-stakes applications that do not affect individuals such as this study, a reliability of separation of around .5 is acceptable. The real RMSE person for non-extreme persons is used in this analysis. The true score reliability will tend to be higher so the statistic used in this analysis provides a conservative estimate.

Item Quality and Effectiveness of Rating Scale

Item quality is assessed by looking for evidence that subsamples of items are responded to by persons with similar levels of satisfaction in similar ways. This is done using infit mean square statistics with a larger value indicating a mismatch. For items, infit statistics of greater than 1.4 are cause for concern (Wright & Linacre, 1994).

The effectiveness of the rating scale is assessed using two statistics. Outfit mean square statistics look at whether hard to endorse items are answered positively by satisfied persons and easy to endorse items are answered negatively by dissatisfied persons. A larger value indicates a mismatch. Outfit mean square statistics should be less than two for rating scale categories (Linacre, 2002a). The coherence of the rating scale is also assessed by looking at the percentage of measures that we expect to be in a

certain category that are actually in that category. Forty percent is the cutoff for a useful level of coherence between measures and categories (Linacre, 2002a).

Item Hierarchy

We expect some items to be easier to endorse than others. If our scale is functioning properly, item responses should form a hierarchy that is consistent with those expectations. Item calibrations within each scale are examined to see whether the items rank order themselves in the expected manner.

Quality of Measures

Quality of measures is assessed by looking for evidence that subsamples of persons with similar levels of satisfaction respond to items in similar ways. This is done using infit mean square statistics with a larger value indicating a mismatch. For persons, infit statistics of greater than 1.4 are cause for concern (Wright & Linacre, 1994).

Perception of Administrators

Seven items are used to construct the Perception of Administrators variable (Table AII.1). The items are presented with four Likert-type response options and all items are polarized to be positive (high scores indicate positive perceptions).

Table AII.1: Perception of Administrators Items

Please indicate the degree to which you agree with each statement below

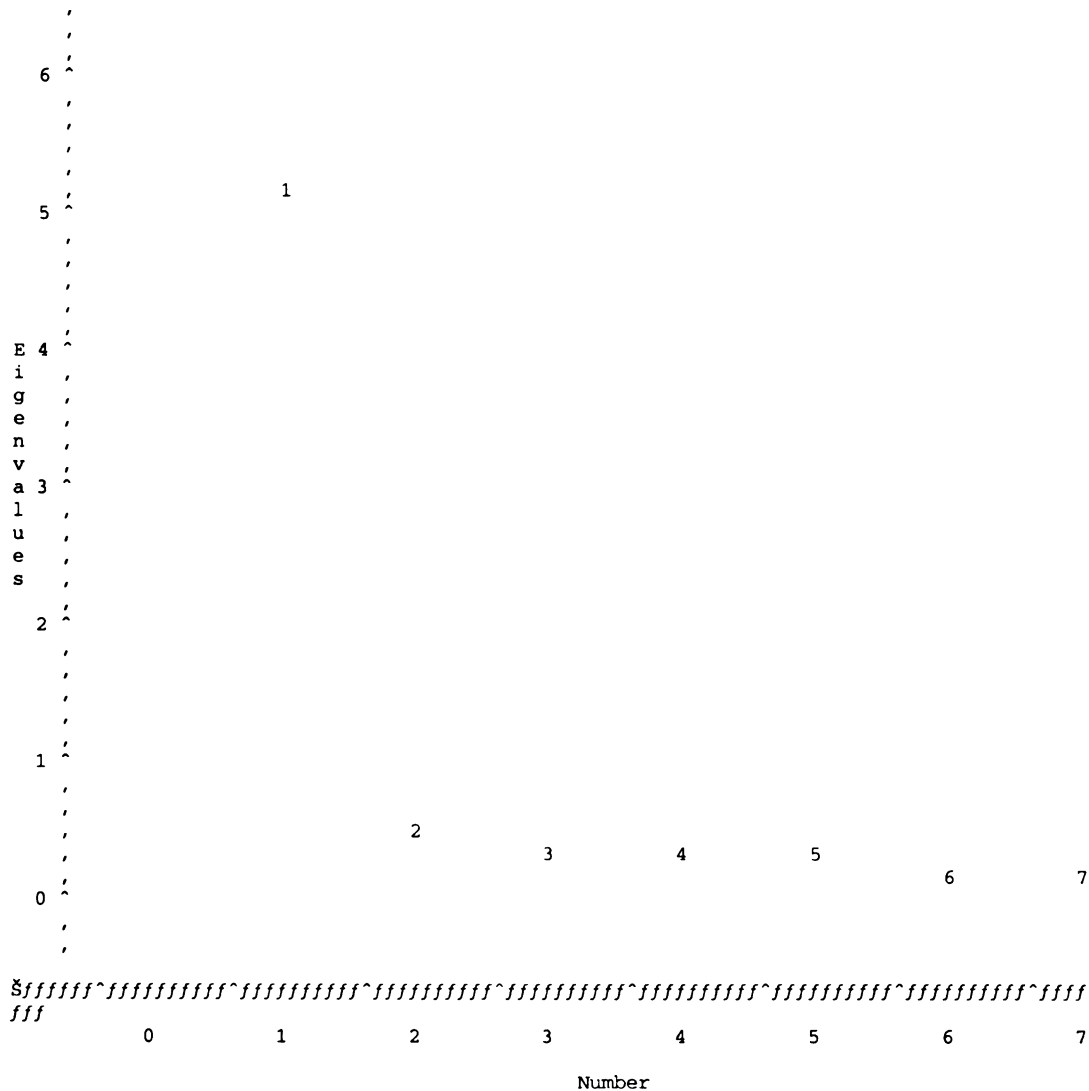
	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
1. The principal deals effectively with pressures from outside the school that might interfere with my teaching.	1	2	3	4
2. The school administrator's behavior toward the staff is supportive and encouraging.	1	2	3	4
3. The school's administrators understand the problems faced by the staff.	1	2	3	4
4. The principal lets staff members know what is expected of them.	1	2	3	4
5. Staff members are recognized for a job well done.	1	2	3	4
6. The school administrators treat all the teachers in a fair, evenhanded way.	1	2	3	4
7. The principal sets priorities, makes plans, and sees that they are carried out.	1	2	3	4

Dimensionality

The scree plot shows strong evidence of unidimensionality (Figure AII.1).

Eigenvalues indicate that the first component accounts for 73 percent of total variance while the second component accounts for only 7 percent of variance. For factor 1, loadings from the exploratory factor analysis range from .82 to .90; substantially above the .4 value threshold.

Figure AII.1: Scree Plot of Eigenvalues for Administrator Items



Reliability

The real RMSE person of .88 is high, indicating very good reliability of separation.

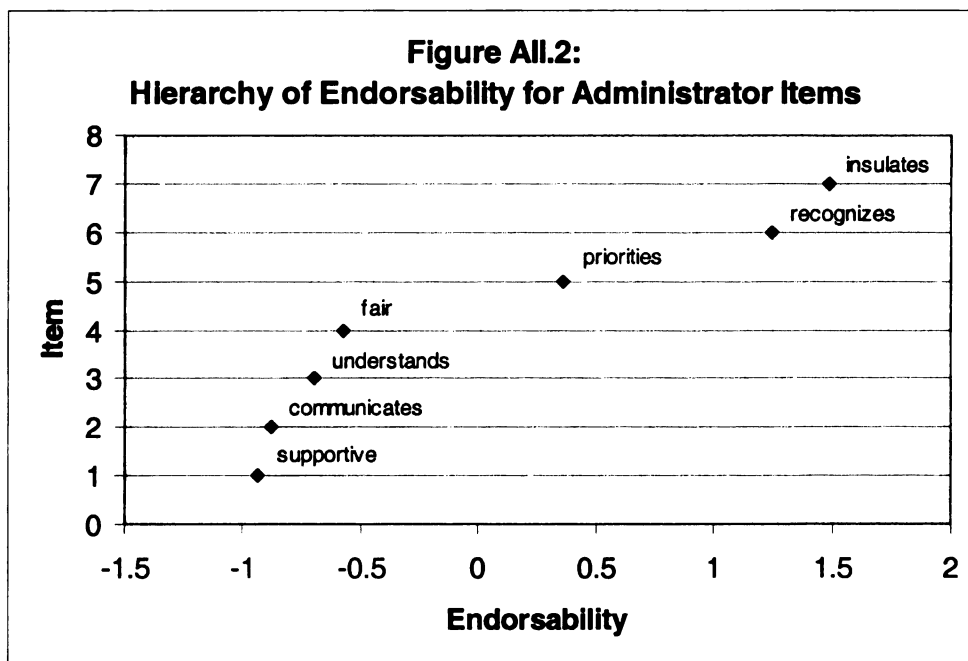
Item Quality and Effectiveness of Rating Scale

None of the items have infit statistics >1.4. This is excellent and indicates that the item quality is high.

The effectiveness of the rating scale is also high. The four Likert-type categories had outfit mean square statistics of .81, 1.04, 1.08, and .91. These are all below the cutoff of two. The coherence between measures and categories is 74, 46, 83, and 80 percent for categories 1, 2, 3, and 4, respectively. These are all above the cutoff level of 40 percent and indicate acceptable coherence of the rating scale.

Item hierarchy

The hierarchy of item endorsability is sensible (Figure AII.2). Items such as being supportive and encouraging are easier to endorse than items like insulating teachers from outside pressures and establishing and implementing school priorities. The first is something that an administrator should have more control over so we would expect more administrators to be able to do this (and for their teachers to recognize this) than items over which the principal has less control.



Quality of Measures

The mean person measure infit statistic is .90 with a standard deviation of .78 (Table AII.2). 18 percent of persons have a person measure infit statistic of greater than 1.4. This is somewhat high but an examination of the response patterns for these teachers indicates a tendency for many of them to find one or sometimes two items either more or less difficult to endorse than the others. It is possible that these teachers had an experience related to these the items that make them believe their school administrators are particularly strong or weak on that aspect of the construct. These teachers are not responding in illogical ways so the high percentage of flagged responses is not a cause for concern.

Table AII.2: Person Measure Summary for Administrator Items

	MS Infit
Mean	.90
SD	.78
Minimum	.07
Maximum	4.44
% Flagged	18% (14/78 persons)

Perception of Colleagues

Six items are used to construct the Perception of Colleagues variable (Table AII.3). Items are presented with four Likert-type response options and all the items are polarized to be positive (high scores indicating positive perceptions).

Table AII.3: Perception of Colleagues Items

Please indicate the degree to which you agree with each statement below

	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
1. There is a great deal of cooperative effort among staff members in my school.	1	2	3	4
2. You can count on most staff members to help out even though it may not be part of their official assignment.	1	2	3	4
3. There is a great deal of trust among the teachers in this school.	1	2	3	4
4. We have a good idea of each other's teaching goals and classroom practices.	1	2	3	4
5. Teachers in this school are constantly learning and seeking new ideas.	1	2	3	4
6. I feel supported by colleagues to try out new ideas.	1	2	3	4

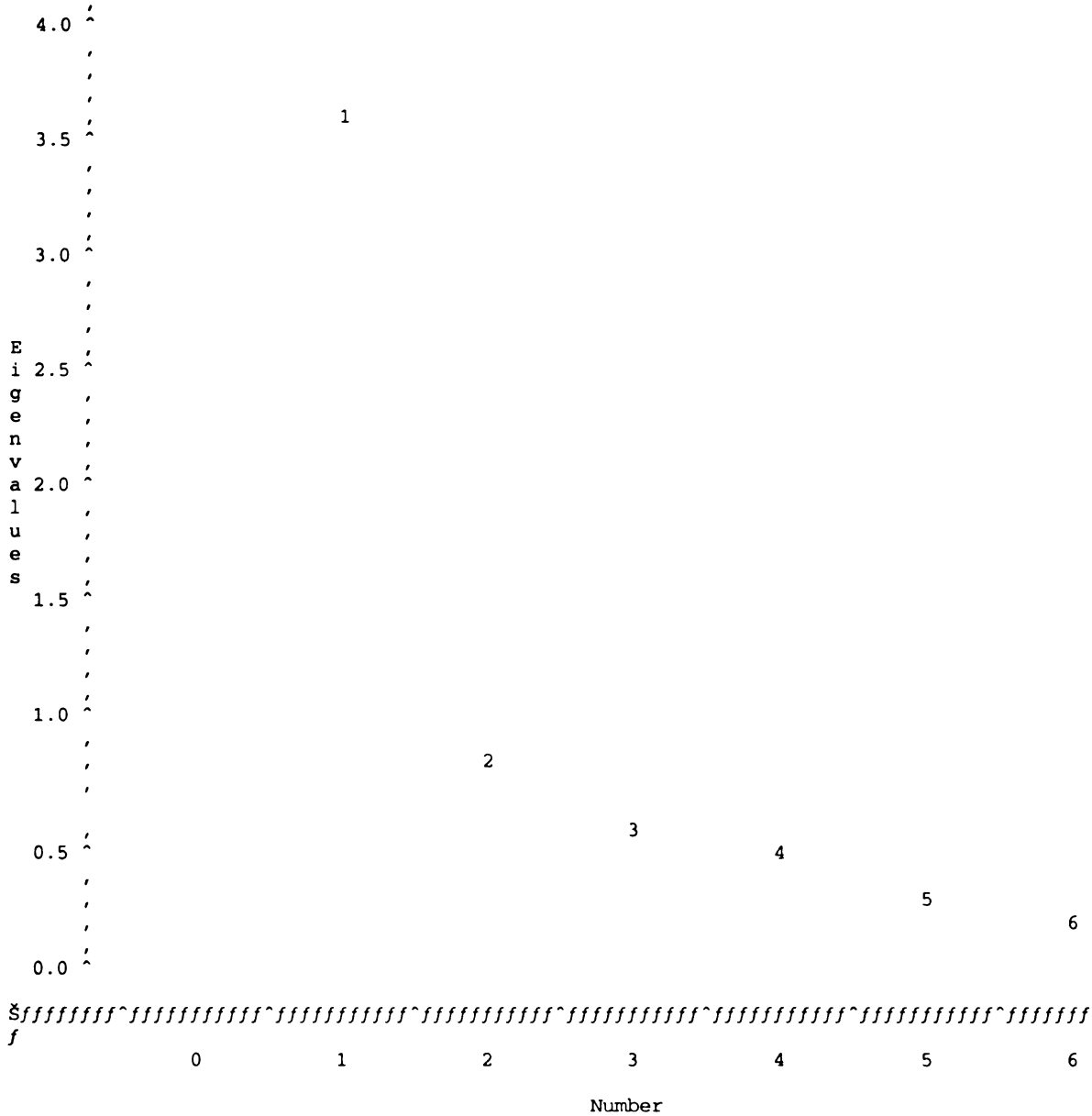
Dimensionality

The scree plot indicates a fairly strong first dimension but that a second dimension may exist as well (Figure AII.3). The first component accounts for 60 percent of total variance, the second component accounts for 14 percent of variance, the third accounts for 10 percent and the fourth accounts for only 8 percent.

For factor 1, loadings from the exploratory factor analysis range from .70 to .89; substantially above the .4 value threshold. These loadings indicate that the colleague

variable is capturing a common underlying construct. The second factor has loadings greater than .4 for Items 2 and 4. Both of these items relate to working together with colleagues either in a helping capacity or by discussions or observations of each others practices. The second factor appears to be a refinement of the more general Perception of Colleagues variable that focuses on interactions.

Figure AII.3: Scree Plot of Eigenvalues for Colleague Items



Reliability

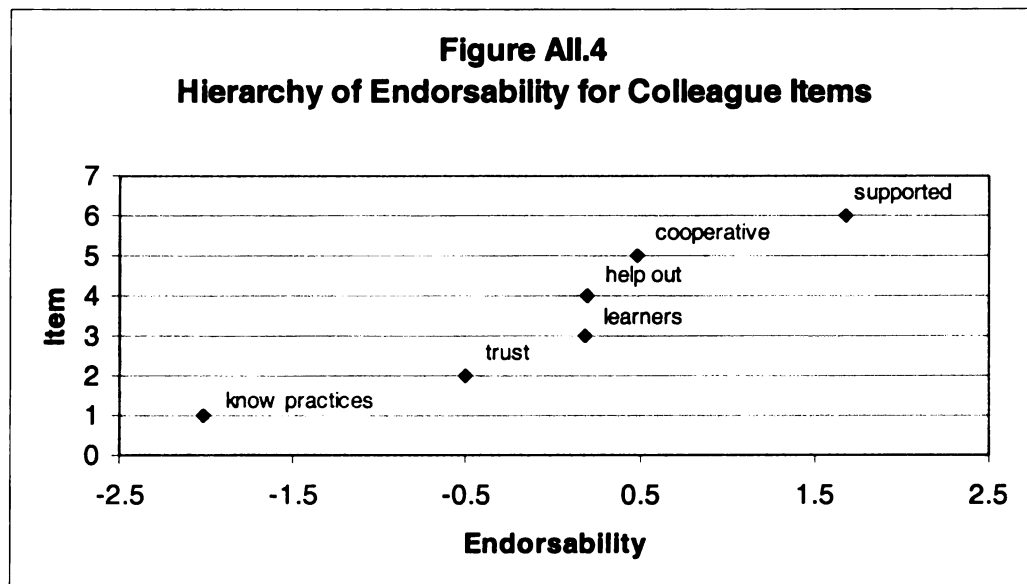
The real RMSE person is .81. As with the administrator variable, this is quite good.

Item Quality and Effectiveness of Rating Scale

None of the items have infit statistics >1.4, indicating high item quality. The effectiveness of the rating scale is acceptable. The four Likert-type categories had outfit mean square statistics of 1.37, .64, 1.00, and .83. These are all below the cutoff of two. The coherence between measures and categories is 60, 71, 83, and 80 percent for categories 1, 2, 3, and 4, respectively. These are all above the cutoff level of 40 percent and indicate acceptable coherence of the rating scale.

Item hierarchy

The hierarchy of item endorsability is sensible (Figure AII.4). Most of teaching takes place behind close doors and teachers are rarely able to observe each others practices. As a result, they are hesitant to say that they have a good idea of each other's classroom practices – they only know about these practices secondhand from the teacher and her students. The item pertaining to trust is also somewhat difficult to endorse. Compared to the other items in this section, trust calls for a higher degree of involvement than the others. You must know someone fairly well before you can claim to trust them whereas it is fairly easy to feel that a relative stranger can be supportive when you try out something new since the risk to both parties is much less.



Quality of Measures

The mean person measure infit statistic is .90 with a standard deviation of 1.06 (Table AII.4). 20 percent of persons have a person measure infit statistic of greater than 1.4, a fairly high percentage. The most infitting person gave responses that are split between the two extreme ends of the scale and appear quite inconsistent. Pairs of items that most persons responded to with similar ratings (e.g., a “4” on one would be found with a “3” or “4” on the other) would be given disparate responses (e.g., a “4” and a “1”) by this person. Almost all of the other teachers used a higher or lower rating category for one item more frequently than we would predict based on their other responses. One possible explanation for this is that these teachers had recent experiences that related particularly well to the misfit item and that were dissimilar to their general impressions of colleagues. The high percentage of flagged responses is a cause for some concern but, since misfit appears to follow explainable patterns, measure quality is acceptable.

**Table AII.4: Person Measure Summary for
Colleague Items**

	MS Infit
Mean	.90
SD	1.06
Minimum	.12
Maximum	8.47
% Flagged	20% (17/84 persons)

Perception of District

Ten items were initially used to construct the Perception of District variable (Table AII.5). The items are presented with four Likert-type response options. Seven of the items are positively polarized with high scores indicating positive perceptions and three questions are negatively polarized (indicated by an asterisk in Table AII.5). The scale of negatively polarized items was reversed prior to variable construction (A one was rescaled as a four, etc.).

In the initial analysis, one of the items, Item 2, did not appear to be measuring the same underlying construct as the remaining items. It only had a loading of .21, substantially below the .4 cutoff. This lack of fit was not surprising. During the interviews, teachers often had very different opinions of TOSA's and of other district personnel. Teachers tended to see TOSA's as supportive of their instructional work while they were more likely to view other district personnel as either imposing additional work on them or as bureaucrats who, sometimes ineptly, took care of issues such as payroll. When discussing "the district," they did not usually discuss TOSA's but thought

of them as a distinct entity. Some of this may also have flowed from the fact that TOSA's are still considered teachers by the district and work under the teacher's contract. Since the interview evidence supported the empirical distinction between the district and TOSA's, the item referring to TOSA's was excluded from the latent variable. The district variable that is used in the analysis includes items 1, 3, 4, 5, 6, 7, 8, 9, and 10.

Table AII.5: Perception of District Items

Please indicate the degree to which you agree with each statement below

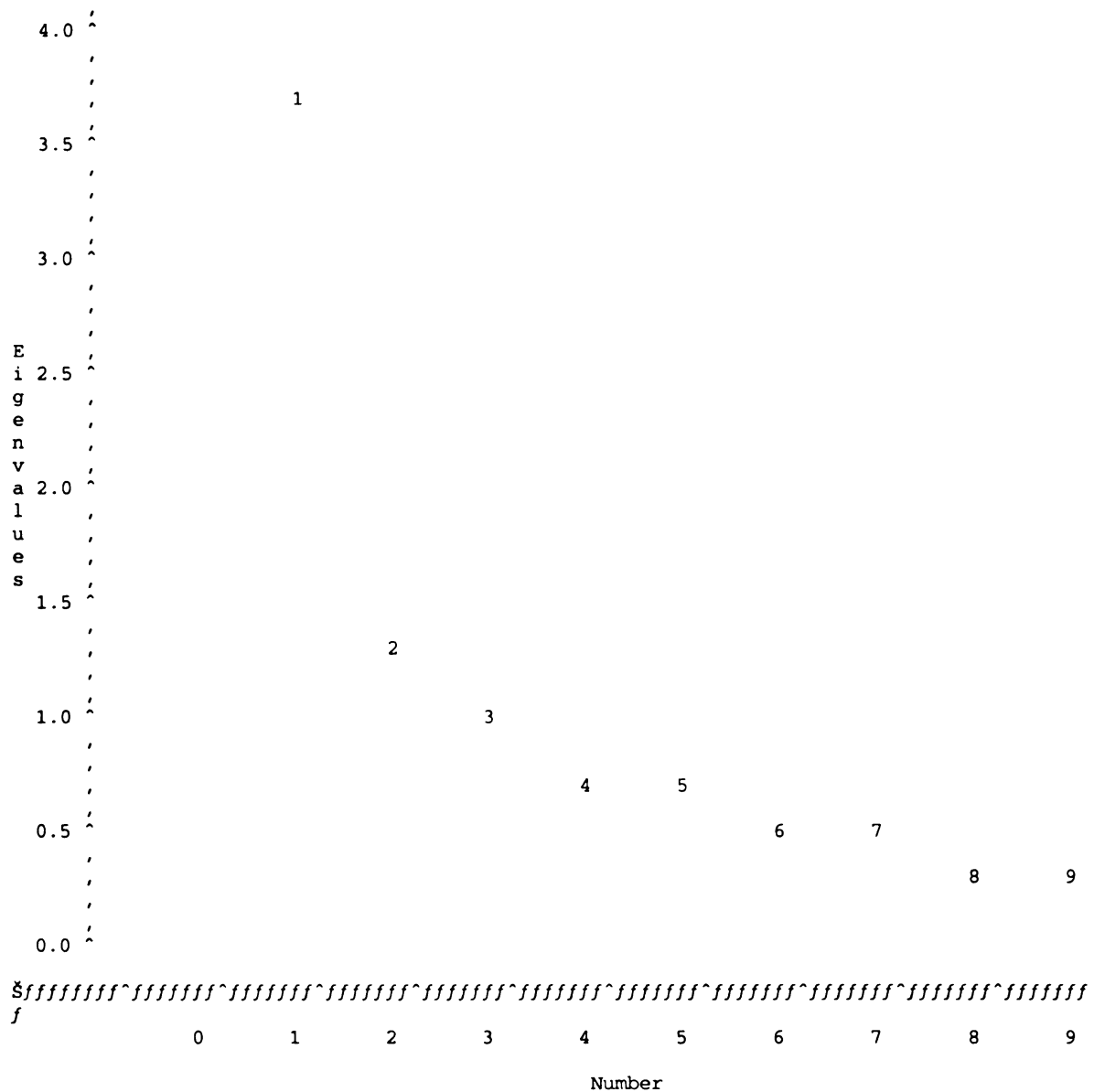
	Completely Disagree	Generally Disagree	Generally Agree	Completely Agree
1. I would accept almost any class or school assignment in order to keep working for this district.	1	2	3	4
2. When I need help with something, the TOSA's are willing and able to help.	1	2	3	4
3. District human resource personnel are helpful and cordial when I ask for assistance.	1	2	3	4
4. I trust district personnel to implement Professional Pay in a fair, evenhanded manner.	1	2	3	4
*5. Often I find it difficult to agree with this district's policies on important matters relating to its teachers.	1	2	3	4
*6. I often have to ignore district policies in order to do what I think needs to be done for my students.	1	2	3	4
*7. Different district policies often send mixed messages about what teachers should do.	1	2	3	4
8. District policies remain stable over time.	1	2	3	4
9. The district is a source of considerable satisfaction with my teaching job.	1	2	3	4
10. The district has clear goals that remain consistent over time.	1	2	3	4

Dimensionality

The scree plot shows some evidence of multidimensionality (Figure AII.5). The first component accounts for 41 percent of total variance, the second component accounts for 14 percent of variance, the third accounts for 10 percent and the fourth accounts for only 8 percent. This evidence of multidimensionality is expected given the nature of the items in this section. Unlike the other two variables, the district variable includes questions about both personnel and policy. The second factor has loadings greater than .4 for Items 6, 7, and 9. These items all relate to the district's affect on teaching and the first two ask directly about policy. These commonalities are resulting in similar responses to these items.

For factor 1, loadings from the exploratory factor analysis range from .54 to .80; substantially above the .4 value threshold. Despite the evidence of multidimensionality, the loadings indicate that the district variable is capturing a common underlying construct.

Figure AII.5: Scree Plot of Eigenvalues for District Items



Reliability

The real RMSE person is .73. This is above the .5 threshold and indicates acceptable reliability of separation.

Item Quality and Effectiveness of Rating Scale

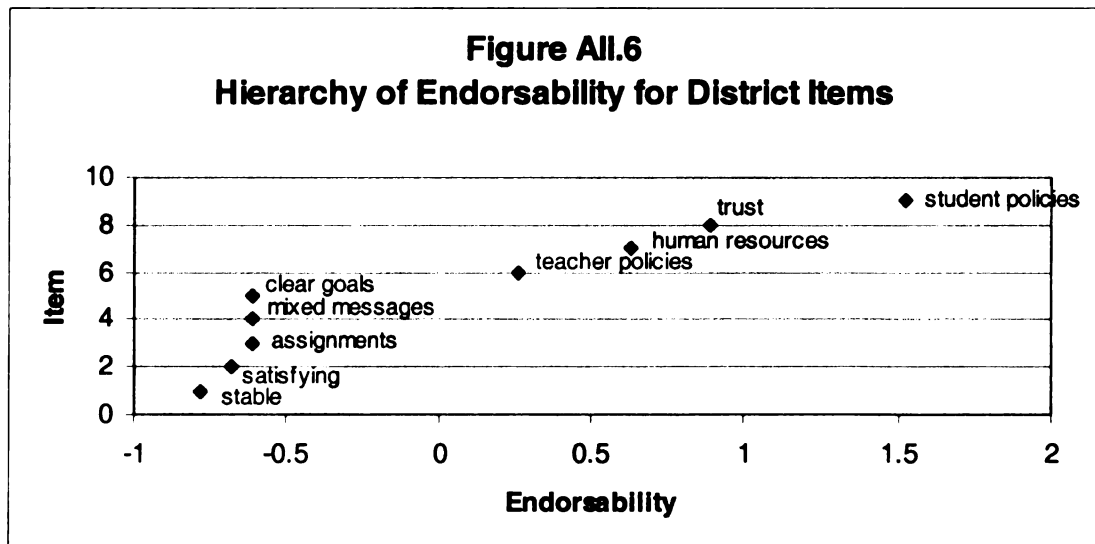
None of the items have infit statistics >1.4. All the items appear to be measuring the underlying construct adequately.

The effectiveness of the rating scale is acceptable. The four Likert-type categories had outfit mean square statistics of 1.00, .91, .88, and 1.65. These are all acceptable. The coherence between measures and categories is 68, 58, 71, and 87 percent for categories 1, 2, 3, and 4, respectively.

Item hierarchy

Teachers did not have generally positive opinions of the district's policies and personnel. On only one item, the one about policy's student impact, did the majority of teachers have positive perceptions.

The hierarchy of item endorsability is sensible (Figure AII.6). The more difficult to endorse questions generally asked the teachers about the district's impact on their job satisfaction while items that were more specific were easier to endorse. They could, for example, be relatively satisfied with human resource personnel but still not be willing to accept any assignment to remain with the district.



Quality of Measures

The mean person measure infit statistic is 1.00 with a standard deviation of .76 (Table AII.6). 17 percent of persons have a person measure infit statistic of greater than 1.4. The most misfitting person felt that policies were quite stable (“4” on item 8) but gave extreme negative responses to all the other items. This seems reasonable since stability is not necessarily a desirable attribute if you disagree with the policies that are remaining in place. The second largest misfit showed a similar pattern. The person did feel that district policies sent mixed messages but had a generally positive impression of those policies and the district personnel. This mixed messages item is flagged as inconsistent more often than any other item and appears to be a lower quality item than the others. Since most of the persons with a high infit statistic exhibit explainable response patterns, the high percentage of flagged responses is acceptable.

Table AII.6: Person Measure Summary for District Items

	MS Infit
Mean	1.00
SD	.76
Minimum	.16
Maximum	4.70
% Flagged	17% (15/86 persons)

Discussion

All of these constructed variables, Perception of Administrators, Perception of Colleagues, and Perception of District, appear to be of adequate quality for inclusion in analysis. There are some problems with the measures. The Perception of Colleagues and Perception of District variables exhibit evidence of multidimensionality but a single dimension does dominate in each case. Given the high reliability of separation, it is reasonable to treat these as unidimensional variables. Item quality is consistently high and the rating scales appear to be functioning effectively. The item hierarchy is reasonable as well. The quality of measures is somewhat low. For all three variables, a relatively high degree of persons are exhibiting misfit. An examination of these teacher's responses shows logical patterns to the misfit so they are not a cause for undue concern. Overall, the three measures exhibit acceptable quality and are appropriate for use in further data analysis.

Appendix III

Minnesota 2001 Statute 122a.413-415

The following contains the text of the statutes enabling the state to fund initiatives such as Professional Pay and outlining the conditions under which this could be done.

122A.413 Educational improvement plan.

Subdivision 1. Qualifying plan. A district may develop an educational improvement plan for the purpose of qualifying for alternative teacher compensation aid under sections 122A.414 and 122A.415. The plan must include measures for improving school district, school site, teacher, and individual student performance.

Subd. 2. Plan components. The educational improvement plan must be approved by the school board and have at least these elements:

- (1) assessment and evaluation tools to measure student performance and progress;
- (2) performance goals and benchmarks for improvement;
- (3) measures of student attendance and completion rates;
- (4) a rigorous professional development system that is aligned with educational improvement, designed to achieve teaching quality improvement, and consistent with clearly defined research-based standards;
- (5) measures of student, family, and community involvement and satisfaction;
- (6) a data system about students and their academic progress that provides parents and the public with understandable information; and
- (7) a teacher induction and mentoring program for probationary teachers that provides continuous learning and sustained teacher support. The process for developing the plan

must involve district teachers.

Subd. 3. School site accountability. A district that develops a plan under subdivisions 1 and 2 must ensure that each school site develops a board-approved educational improvement plan that is aligned with the district educational improvement plan under subdivision 2. While a site plan must be consistent with the district educational improvement plan, it may establish performance goals and benchmarks that meet or exceed those of the district. The process for developing the plan must involve site teachers.

122A.414 Alternative teacher compensation.

Subdivision 1. Restructured pay system. A restructured teacher compensation system is established under subdivision 2 to provide incentives for teachers to improve their knowledge and skills and for school districts to recruit and retain highly qualified teachers, and to support teachers' roles in improving students' educational achievement.

Subd. 2. Alternative teacher Professional Pay system.

(a) To participate in this program, a school district must have an educational improvement plan as described in section 122A.413 and an alternative teacher Professional Pay system as described in paragraph (b).

(b) The alternative teacher Professional Pay system must:

(1) describe the conditions necessary for career advancement and additional compensation;

(2) provide career advancement options for teachers retaining primary roles in student instruction;

(3) use a Professional Pay system that replaces the step and lane salary schedule and is not based on years of service;

(4) encourage teachers' continuous improvement in content knowledge, pedagogy, and use of best practices; and

(5) implement an objective evaluation system, including classroom observation, that is aligned with the district's or the site's educational improvement plan as described in section 122A.413.

Subd. 3. Report. Participating districts and school sites must report on the implementation and effectiveness of the alternative teacher compensation plan, particularly addressing each requirement under subdivision 2 and make biennial recommendations by January 1 to their school boards. The school boards shall transmit a summary of the findings and recommendations of their district to the commissioner.

122A.415 Alternative compensation aid.

Subdivision 1. Aid amount. (a) A school district that meets the conditions of section 122A.414 and submits an application approved by the commissioner is eligible for alternative compensation aid. The commissioner must consider only applications submitted jointly by a school district and the exclusive representative of the teachers for participation in the program. The application must contain a formally adopted collective bargaining agreement, memorandum of understanding, or other binding agreement that implements an alternative teacher Professional Pay system consistent with section 122A.414 and includes all teachers in a district, all teachers at a school site, or at least 25 percent of the teachers in a district. The commissioner, in approving applications, may give preference to applications involving entire districts or sites or to applications that

align measures of teacher performance with student academic achievement and progress under section 120B.35, subdivision 1.

(b) Alternative compensation aid for a qualifying school district, site, or portion of a district or school site is as follows:

(1) for a school district in which the school board and the exclusive representative of the teachers agree to place all teachers in the district or at the site on the alternative compensation schedule, alternative compensation aid equals \$150 times the district's or the site's number of pupils enrolled on October 1 of the previous fiscal year; or

(2) for a district in which the school board and the exclusive representative of the teachers agree that at least 25 percent of the district's licensed teachers will be paid on the alternative compensation schedule, alternative compensation aid equals \$150 times the percentage of participating teachers times the district's number of pupils enrolled as of October 1 of the previous fiscal year.

Subd. 2. Percentage of teachers. For purposes of this section, the percentage of teachers participating in the teacher Professional Pay system equals the ratio of the number of licensed teachers who are working at least 60 percent of a full-time teacher's hours and agree to participate in the teacher Professional Pay system to the total number of licensed teachers who are working at least 60 percent of a full-time teacher's hours.

Subd. 3. Aid timing. (a) Districts or sites with approved applications must receive alternative compensation aid for each school year that the district or site participates in the program as described in this subdivision. Districts or sites with applications received by the commissioner before June 1 of the first year of a two-year contract shall receive

alternative compensation aid for both years of the contract. Districts or sites with applications received by the commissioner after June 1 of the first year of a two-year contract shall receive alternative compensation aid only for the second year of the contract. A qualifying district or site that received alternative compensation aid for the previous fiscal year must receive at least an amount equal to the lesser of the amount it received for the previous fiscal year or its proportionate share of the previous year's appropriation if the district or site submits a timely application and the commissioner determines that the district or site continues to implement an alternative teacher Professional Pay system, consistent with its application under this section. The commissioner must approve initial applications for school districts qualifying under subdivision 1, paragraph (b), clause (1), by January 15 of each year. If any money remains, the commissioner must approve aid amounts for school districts qualifying under subdivision 1, paragraph (b), clause (2), by February 15 of each year.

(b) The commissioner shall select applicants that qualify for this program, notify school districts and school sites about the program, develop and disseminate application materials, and carry out other activities needed to implement this section.

Appendix IV

The 2003-2005 Teacher's Contract for Minneapolis Public Schools

The following text includes all sections of the 2003-2005 contract pertaining directly to Professional Pay. Roman numerals distinguishing each section and italicized text are a guide to the reader and are not included in the actual contract language.

Section I

MPSU SYSTEM 1-2-3 PAYMENT

Effective September 15 2003, teachers on active assignments who are members of the Professional Pay Plan (PPP) shall be eligible to receive an increase of \$1,000 to their annual salary for after completion of a qualified Minneapolis Public Schools University (hereafter known as MPSU) course.

The teacher must apply in writing to the Human Resources department. The increase shall be effective the date of certification, but not more than 45 calendar days prior to the date of application. Teachers may apply for Professional Pay Plan increases up to two (2) times in one school year, or thirty (30) times in their career in Minneapolis Public Schools.

The Minneapolis Staff Development Advisory for the Minneapolis Public Schools Teacher Academy (hereafter known as MPSTA) shall determine the qualifications of MPSU courses and requirements for certification of completion of such courses.

Completion of an MPSU course for certification and eligibility to apply for an increase shall be guided by System 1-2-3, and shall minimally include the following:

1. All activities, attendance, and expectations of the MPSU course are met completely;
2. Practical implementation of the skills and/or strategies with the teacher's students or within other appropriate, assigned, non-classroom duties is clearly demonstrated for observation and feedback by an instructor or qualified designee; and,
3. Thorough and meaningful assessment of the impact of those skills and/or strategies and reasonable efforts to share their conclusions with colleagues and others in the district can be demonstrated.

Teachers who are not members of the Professional Pay Plan, upon being certified as completing a qualified MPSU course are eligible to use such course completion as professional growth credits equivalent to three (3) quarter credits toward a lane change.

This section of the contract formalizes the requirements that teachers must complete three activities in order to qualify for rewards under MPSU 1-2-3. They must successfully complete all required coursework, they must demonstrate that they are using their acquired skills in the classroom or other appropriate setting, and they must conduct action research about the impact of their new skills and share the results of this research with others. This also guarantees that teachers will receive a \$1,000 increase to their base salaries for successful completion of each course.

Section II

Section A. Salary: Schedule: Teachers shall be paid in accordance with one of two salary schedule plans, the standard salary schedules or the Professional Pay Plan option, adopted by the Board of Education for the 2003-2005 contract period.

Subd. 1. Standard Salary Schedules: The salaries for teachers employed under regular contract in the Minneapolis Public Schools are reflected in standard salary Schedule A and shall be a part of this Agreement for the period July 1, 20013, through June 30, 20024, and standard salary Schedule B shall be part of this Agreement for the period July 1, 20024, through June 30, 20035.

Subd. 2. Professional Pay Plan Option: Effective upon adoption of this agreement, teachers shall continue to have the **option** to participate in the Professional Pay Plan. Teachers currently enrolled in the Professional Pay Plan shall have a period of forty-five (45) duty days following publication of the terms and conditions of the Professional Pay Plan in which to review the plan and exercise the **option** to withdraw from the Professional Pay Plan without loss of pay, change of rightful placement on the standard salary schedule, or other penalty. The Professional Pay Plan shall continue in effect and remain an **option** for teachers and shall be part of this Agreement for the period July 1, 2003, through June 30, 2005.

Curtailment: In the event that the Professional Pay Plan option should cease to be available at any time, salaries of current members of the Professional Pay Plan shall remain unchanged until or unless their current experience and education (step and lane) placement on the Standard salary schedule places them at a higher amount than their salary under the Professional Pay Plan at the time of its cessation.

Section B. Relationship of Continuing Contract: The standard salary schedules and Professional Pay Plan are a part of a teacher's continuing contract as outlined in this Agreement (Article I, Section C.1.). Pending continued, adequate Minnesota State

funding for the plan and beginning prior to June 30, 2005, the Union and the District shall renegotiate continuation of the Professional Pay Plan.

This section makes it clear that plan participation is optional and that teachers can withdraw without penalty during the enrollment/disenrollment period. It also guarantees that, should the plan be eliminated, participating teachers will not have their salaries reduced upon returning to steps and lanes. Plan continuation beyond the 2004-2005 school year is contingent upon continued state funding.

Section III

SALARY IN THE PROFESSIONAL PAY PLAN

The following shall be applicable in determining salary of a MPS teacher under the Professional Pay Plan option:

Subd. 1. Base Salary. The salary of a teacher under the Professional Pay Plan shall be determined upon the establishment of a base salary upon which the teacher shall adjust salary through post-secondary education and professional development through the Minneapolis Public Schools University (MPS-U).

Subd. 2. Conversion of current teachers to the Professional Pay Plan: A teacher's base salary will be determined by their placement on the 2004-2005 standard salary schedule upon converting to the Professional Pay Plan.

Subd. 3. Salary Adjustments Based on Education and Professional Development

Teachers are encouraged to continuously improve their professional skills and knowledge through coursework and other professional development activities which enhance their instructional skills and help them meet the needs of the students they teach. Requests for reclassification on the salary schedule may be

made at any time the teacher completes the required work. All requests must be accompanied by appropriate certification:

- ° A certified transcript from an accredited training institution showing credits earned and credit hours completed and degree granted, if any,
- ° A certificate of professional growth credits for Minneapolis Public School University (MPS-U) professional development for which completion of training, observation of implementation and documentation of use of student data have been duly certified.
- ° A copy of the National Board Certificate (NBC) or a recognized equivalent national certificate as agreed upon by the Union and the District.

Certification must be submitted with the salary adjustment request form to the Human Resources department for evaluation. When determining salary adjustments, credits earned shall be converted, when necessary, and calculated as quarter credits.

Any increase in salary to which the individual is entitled by reason of salary adjustment will be made effective at the beginning of the payroll period following submission of all required documents. However, retroactive salary adjustments shall not exceed forty-five (45) days nor extend prior to the date of the confirmation of the degree or credits.

A. Professional Development Advancement: All certified, fully completed MPS-U courses shall qualify such individual for salary adjustment according to the specifications prescribed by the agreed upon Professional Pay Plan. Note, however, that MPS-U credits submitted as professional development

advancement, as described herein, may not subsequently be applied as additional educational credits, as described below.

- B. **Additional Educational Credits:** All accredited college and university credits, and professional growth credits, including MPS-U credits, earned after an individual's initial Bachelor's Degree shall qualify such individual for salary adjustment according to the specifications prescribed by the agreed upon Professional Pay Plan. Note, however, that MPS-U credits submitted as additional educational credits, as described herein, may not subsequently be applied as professional development advancement, as described above.
- C. **Montessori Credits:** For purposes of this Article only, a teacher who successfully completes a training program in a school accredited by the American Montessori Society or International Montessori Association shall receive (1) one quarter credit, applicable as additional educational credits, for each thirteen (13) classroom contact hours of instruction received without regard to college or university credits assigned by the training institution.
- D. **PDP Credits:** Teachers shall earn one (1) professional growth credit for PDP work per year upon demonstration of ten (10) or more hours of PDP.
- E. **AYP Service Credits:** Teachers may earn up to three (3) professional growth credits (PGC's) for each year of teaching in a designated Tier 1 or Tier 2 or 3rd year AYP school setting. Credit shall be given for teaching experience of more than a semester in a year.

The Human Resources department will not be responsible for making interpretations of transcripts or certificates without a written specific request.

When teachers join Professional Pay, their base salary will be the salary they would have earned under steps and lanes in the 2004-2005 school year. A teacher can increase this base salary through the successful completion of MPSU 1-2-3 courses, through earning of academic credits through an accredited college or university, and by earning a National Board Certificate.

Section IV

Subd. 4. Curtailment of the Professional Pay Plan: In the event that the Professional Pay Plan option should cease to be available at any time, salaries of current members of the Professional Pay Plan shall remain unchanged until or unless their current experience and education (step and lane) placement on the Standard salary schedule places them at a higher amount than their salary under the Professional Pay Plan at the time of its cessation.

This section reiterates the last part of section II.

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