Incentives for Teachers: What Motivates, What Matters

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Propelled by a salvo of critiques on education, American citizens, politicians, and educators set out to scrutinize their schools in 1983. Considerable evidence—declining SAT scores, unfavorable international comparisons of students' performance, documentation that the best college students shun teaching while the best teachers abandon the profession altogether—suggested that the problems with our schools were more substantive than superficial. In the flurry of research, resolution, and reform that followed, teachers were perceived to be central to both the problem and the solution. They were judged to be insufficiently qualified and committed. Their inadequate training, low pay, low status, unstaged careers, unrecognized efforts, and poor working conditions were said to render them ineffective. In response, state and local governments rapidly enacted an array of incentive plans designed to recruit, reward, and retain the best teachers.

These varied incentives were directed at prospective, novice, and veteran teachers. Loan forgiveness plans and higher entry wages were intended to attract new, talented recruits to teaching. Merit pay and career ladders were intended to provide financial incentives, varied work, and advancement opportunities for seasoned teachers. These, along with across-the-board pay raises, work environment premiums for difficult assignments, and grants or sabbaticals for research or study promised to right the wrongs in schooling.

The theoretical basis for these reforms was generally unspecified; rather, proponents advanced them as being consistent with common sense and proven practice in business, industry, and higher education. However, a review of the reforms suggests that they were derived from three theories of motivation and productivity. The first was expectancy theory, which posits that individuals are more likely to strive in their work if there is an anticipated reward that they value (such as a bonus or a promotion) than if there is none. The second was equity theory, which holds that individuals are dissatisfied if they are unjustly compensated for their efforts and accomplishments. The third was job enrichment theory, which assumes that workers are more productive when their work is varied and challenging. Expectancy theory and equity theory provided justifications for merit pay and career ladders, while job enrichment theory supported differentiated staffing and career ladder plans.

Not surprisingly, these theories were less complex than the problems they addressed, and the outcomes less certain than many policymakers had expected. Although the impact of the current reforms on teacher behavior and school practices has yet to be studied, laboratory experiments and field studies provide useful findings about the prospects and limitations of such initiatives. A good deal is known about how such plans have fared in the past, and although the research is far from conclusive, it suggests that the best ways to motivate teachers and to design effective incentives policies have yet to be learned.

Studies have indicated that while financial incentives can promote specific behaviors (such as taking on difficult teaching assignments) and can direct teachers' efforts toward measurable goals (such as achieving higher test scores), they are less promising as tools to improve general teaching performance. There is extensive evidence that teachers regard professional efficacy, not money, as the primary motivator in their work, and some evidence that the prospect of extrinsic rewards may diminish the potency of intrinsic rewards for them. Further, there is some indication that competitive rewards intended for the individual may be less effective in motivating teachers than are inducements designed to engage them in schoolwide enterprises and to promote shared professional goals.

The following discussion first considers the concept of motivation and two theoretical disputes that are central to the reform proposals—
how intrinsic and extrinsic rewards function and whether incentives must be focused to be effective. Next follows a review of what is known about merit pay and career ladder plans, the centerpieces of most reform initiatives. Finally, there is a consideration of the potential role of group-based collegial incentives in motivating teachers and improving their performance.

MOTIVATION THEORY AND RESEARCH

The performance incentives devised in the recent reform movement are based on a conventional notion of motivation, drawn from expectancy theory. This theory holds that people can be expected to act in anticipation of achieving favorable outcomes or rewards and avoiding unfavorable outcomes or penalties. Vroom, who first advanced expectancy theory, held that a worker’s behavior could be predicted once it was known what valences (favorable or unfavorable) and probabilities (likely or unlikely) he or she attached to that outcome. A person who desires a reward that is thought to be attainable is believed to shape his or her behavior to increase the likelihood of achieving that reward.

The questions raised in the current policy debate parallel two issues that have been debated by motivation theorists and researchers. The first is whether intrinsic and extrinsic rewards play distinct and compatible roles in motivation. The second is whether all rewards function as incentives. These will be elaborated below.

Intrinsic Versus Extrinsic Rewards

Although there may be a commonsense notion of what constitutes extrinsic and intrinsic rewards, theoreticians have found the terms somewhat problematic. Sieber has noted that these terms have been taken to imply variously: “a source of gratification that is self-contained versus a resource that is useful for purchase of gratification elsewhere,” “a predisposition toward ideal goals versus self-interested goals,” “a role emphasis on individual performance versus an emphasis on incumency as conditions for acquiring rewards,” and “intangible versus tangible benefits.” Similarly, Dyer and Parker studied psychologists’ use of the terms “intrinsic” and “extrinsic” and found that they were used inconsistently, leading the authors to conclude that the concepts “convey a variety of divergent connotations.”

Despite this imprecision, educators have found the distinction between intrinsic and extrinsic rewards to be useful in thinking about incentives. Having cited an array of definitions for the terms, Sieber did not abandon them, but chose to use them, distinguishing between “performance related” and “material” incentives. Lortie, too, has separated extrinsic rewards, such as “money, income, level of prestige, and power over others,” from intrinsic or “psychic” rewards that “consist entirely of subjective valuations made in the course of work engagement.” Although some might well disagree with the contention of Mitchell et al. that “there is virtually unanimous agreement among serious scholars” that intrinsic and extrinsic rewards are “fundamentally different in character,” it does seem clear that many in education find meaning in the terms. Therefore, without seeking to resolve this issue, the term “intrinsic” will be used here to refer to those rewards that are primarily internal and intangible, such as pride in work or achieving a sense of efficacy, and the term “extrinsic” will be used to refer to those rewards that are primarily external and material, such as pay and promotions.

Although there is some dispute among industrial psychologists, it is generally agreed that people can be motivated by extrinsic rewards, such as pay and promotion, as well as by intrinsic rewards, such as pride in work. Underlying many of the current incentives policies is the assumption that people can be motivated primarily by extrinsic rewards, a belief that some educators dispute. It is clear that money does matter to teachers and that they respond to opportunities for greater earnings. However, there is disagreement about whether extrinsic rewards are effective incentives for all types of work. Based on their review of the literature, Bacharach et al. concluded that extrinsic rewards such as money will improve the performance of “uninteresting or otherwise unattractive” tasks, but that intrinsic motivation is sufficient for problem-solving tasks.

Herzberg has contended that those factors that motivate workers, the so-called “motivator factors” (such as achievement, recognition, responsibility, or growth) are intrinsic to the work itself, while other so-called “hygiene factors” (such as company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security) are extrinsic to the job. On the basis of his research, Herzberg concluded that “motivator factors were the primary cause of satisfaction, and hygiene factors the primary cause of unhappiness on
the job. Pay does not motivate, he argued, but can be the source of dissatisfaction.  

Herzberg's dual-factor theory of motivation has been criticized on methodological and theoretical grounds and said to oversimplify the "relationships between motivation and satisfaction, and the sources of job satisfaction and dissatisfaction." Despite this, many have found Herzberg's two-dimensional model useful in thinking about education, largely because it is consistent with teachers' accounts of their work. Lortie found teachers' primary motivators to be the intrinsic rewards of having reached their students, while the conditions that they complained most about (clerical duties, interruptions and time pressures, and extra duties) were those that interfered with achieving those intrinsic rewards. Similarly, Goodlad found that although money was not a major reason teachers gave for entering the profession, it ranked second (after inefficacy) as a reason for leaving. He speculated that:  

Anticipating rewards intrinsic to the work, teachers begin with a willingness to forgo high salaries. However, when confronted with the frustration of these expectations, the fact that they sometimes are paid less than the bus drivers who bring their students to school may become a considerable source of dissatisfaction as well.

Researchers have also studied the interaction of intrinsic and extrinsic rewards. The findings of three experimental studies suggest that the intrinsic rewards of teaching may be compromised when money is introduced as an additional or alternative incentive. First, Deci, whose experiments tested the effect of pay on subjects' intrinsic interest in solving puzzles, found that "once they got money for doing a fun game, their intrinsic motivation decreased." Deci criticized Vroom's expectancy theory and noted that it "pays scant attention to the intrinsic rewards that accrue to a person when he does a job well." He notes that "contingent reward systems become a challenge to people; thus their creativity begins to work against the interests of their organizations rather than for them."

In a related study, Condry and Chambers compared how subjects perform tasks in response to extrinsic and intrinsic motivators. They concluded:  

Intrinsically motivated subjects attend to and utilize a wider array of information; they are focused on the way to solve the problem rather than the solution. They are.

In general, more careful, logical, and coherent in their problem-solving strategies than comparable subjects offered a reward to solve the same problems. In a third study, Garbarino investigated sixth-grade tutors' efforts to teach first graders a complicated game and found that when the tutors were working for an extrinsic reward (a movie ticket) they were more critical of the tutees, made more demands for answers, laughed less often, and were more likely to offer answers if the tutees were not immediately successful. By contrast, tutors working only for the satisfaction of teaching were more accepting and their tutees were more likely to succeed in the task.

Some would contend that these experimental studies have limited applicability in the world of practice. However, McLaughlin and Marsh, reporting findings from a nonexperimental change agent study, said that extrinsic rewards had similar effects:

Teachers who received extra pay for training (about 60 percent of the sample) were less likely than others to report a high percentage of project goals achieved. These teachers also reported less improvement in student performance, especially academic performance, than did other teachers in the study.

By contrast, they found that the most powerful teacher attribute, the one that showed "a strong, positive relationship to all of the project outcome measures," was an intrinsic motivator, "the teacher's sense of efficacy—a belief that the teacher can help even the most difficult or unmotivated students." Similarly, in his study of high school teachers, Spick found that "extrinsic rewards were related to job performance, reduced absenteeism, improved peer and superordinate relations and, in particular, effectiveness of the teacher's classroom behavior."

These limited data provide some evidence that efforts to motivate veteran teachers with pay and promotions may prove to be misdirected and counterproductive. It would be a mistake, however, to conclude that extrinsic rewards are irrelevant in this search for appropriate incentives. To say that teachers are motivated primarily by intrinsic rewards does not necessarily mean that they are motivated solely by them. Money does matter, particularly to teachers whose pay falls short of personal needs. What the research does suggest is that most teachers need to feel a sense of personal accomplishment if they are to persevere
in the difficult work of teaching. There are easier ways to make a living, and most teachers who leave teaching do so because they fail to achieve personal satisfaction in their work.11 However, even intrinsic rewards may not be sufficient to retain and inspire the best teachers in a society that denies teachers the status and pay of other service professions such as law and medicine.

Further research is needed to understand the effects and possible interaction of intrinsic and extrinsic rewards for educators and to clarify what each type of reward motivates teachers to do—to work longer hours, to teach in different ways, to assume new responsibilities, or to work harder. Extrinsic rewards may be counterproductive for some purposes but constructive for others. Bonuses paid to teachers for assuming specific assignments or doing extra work may not compromise their commitment to instruction. In fact, such extrinsic incentives may enable them to continue in the profession while increasing their income and enlarging the scope of their responsibilities.

Rewards as Incentives

The second issue about which there is some dispute is whether all rewards function as incentives, that is, whether all the favorable features and outcomes of a job motivate workers to do their best, or whether only those that are tied directly to specific behaviors do so. Mitchell et al. criticize those who fail to differentiate rewards from incentives and argue that the term "incentive" should not be applied to all the benefits of work but to "contemplated" rewards that "lead people to modify their behavior."12 This distinction is at the center of much of the debate about schooling reform. Some contend that educators would be more productive if the array of professional rewards (for example, pay, praise, or personal satisfaction) were expanded and guaranteed for all. These would include what Lortie has called "ancillary rewards," those "objective characters of the work,"13 such as good working conditions, the convenience of the academic calendar or the security of retirement benefits. Such benefits apply to all staff equally and do not vary in response to performance. Other analysts hold that such ancillary rewards function as incentives only for prospective teachers, and that once teachers have entered the profession, such rewards will not promote better teaching. Consistent with expectancy theory, it is argued that teachers must anticipate the connection between their actions and subsequent payoffs. To be effective, it is said, incentives must be focused, variable, contemplated, and respond to with purpose.

There are, then, several fundamental issues of motivation that are unresolved, yet are central to the design of incentive plans for teachers. First, we do not know how intrinsic and extrinsic rewards act and interact. Second, we do not know if teachers are best motivated by focused incentives or by general conditions that enable them to achieve the intrinsic rewards of their work. Despite these limitations of theory and data, those intent on improving practice have introduced incentive plans for teachers. Most are forms of merit pay or career ladders that will be considered below in some detail.

MERIT PAY

Merit pay in its pure form is a compensation system in which workers' pay is based on their performance. Good workers earn more, poor workers earn less. In educational practice, merit pay may take many forms with merit determining only part of a teacher's income. The term "merit pay" might be used to denote variously a bonus plan that supplements the standard pay scale and rewards teachers for special services, a multitrack pay scale that provides rapid salary advancement for outstanding teachers, or a bonus pay plan for specific accomplishments such as improving test scores, participating in extracurricular activities, or conducting in-service training.

Although merit pay is based primarily on Vroom's expectancy theory discussed above, it is also grounded in equity theory, which as Weick explains

focuses on the fact that the outcomes of any process of exchange can be perceived as just or unjust, equitable or inequitable... Thus, a person will feel inequity if he expends high effort for low outcomes (high/low) while his coworker gets high outcomes for the same amount of effort (high/high), but, he will be even more bothered if the coworker obtains his high outcomes with low inputs (low/high).14

Together, these theories suggest that workers are motivated by the prospect of valued rewards and that they will be dissatisfied and unproductive if they believe that their efforts are not equitably compensated.

Lawler, who has studied the use of merit pay in industry, found that the practice is neither as common nor effective as many believe,15 largely
because to be successful, merit pay plans must meet several conditions. These are: that the worker must value the reward, that is, pay; performance must be "validly and conclusively measured; assessments must vary in response to different levels of performance; information must be available that makes clear how rewards are given; trust must be high; and employees must accept the performance-based system."

Moreover, pay differentials must be substantial; Lawler has estimated that bonuses must be at least 3% of the base salary in order to provide sufficient motivation," and has warned that "motivating people with financial rewards is not a piker's game."

Lawler has also cautioned that merit pay is not appropriate for all individuals or organizations. He has found that those who work for nonprofit organizations often perceive pay quite differently and of less importance than those who work in for-profit firms. Similarly, Rainey has found that "government managers, as compared to business managers, tend to perceive a weaker relationship between their performances and [extrinsic] incentives."

Lawler has contended that merit pay is an effective incentive in work such as sales or piecework, where "employees contribute independently to the effectiveness of the total group or organization." It is thus appropriate to implement an incentive plan that motivates these employees to maximize their individual productivity and to pay little attention to cooperative activities. Performance-based pay is not appropriate, however, for work that must be done "either successively (work that passes from one person to another, for example, assembly operations) or coordinately (work that is a function of the joint effort of all employees, for example, production as is done in chemical plants)."

Lawler has observed that nonindustrial, professionally staffed service organizations such as hospitals and schools would find it difficult to adopt successfully bonus plans tied to piece rate systems or organizationwide bonus plans. If Lawler's analysis is correct, merit pay will be difficult to implement in the schools, where work is successive, accomplishments are cumulative and cooperation is essential.

**Merit Pay Plans in Schools**

Throughout the century, researchers have documented schools' efforts to institute merit pay; their findings have been discouraging. During three periods, the policy has been eagerly adopted and then gradually abandoned. The earliest merit pay efforts were spurred by the promises of Taylor's "scientific management." In 1918, Evenden found that 48% of the 309 cities he studied reported using "success, merit, efficiency, or satisfaction" for granting salary increases. In 1933, Young studied programs in 48 districts where "a teacher's rating directly and automatically determines the amount of her salary increase" and found that 91.7% of the districts determined the annual increment on the basis of the merit rating. Despite this initial enthusiasm, merit pay plans were short lived. Johnson has reported:

> From about 1935 until 1955, merit pay received little attention. There is little detailed information about the fate of the various plans Young studied except that one by one they fell into disuse. When merit pay became the educational vogue again, it was considered a novel reform.

The second wave of enthusiasm for merit pay followed the launching of Sputnik and American educators' consequent concerns about their schools. In 1965, Steffensen reviewed comprehensive merit pay plans instituted by six districts, detailing with some optimism their use of complex assessment techniques to surmount problems with evaluation. Yet, "for all their sophistication, the merit pay plans of the 1960s were no more enduring than those of the 1920s." Porroll estimated that by 1972 the percentage of merit pay plans in effect had dropped from 10% to 5.5%. In his 1978 survey of 115 merit pay plans, Porroll identified 1973 as the "median date that these plans were instituted . . . with the earliest plan beginning in 1958 and the latest in 1978."

The current period of prominence for merit pay was prompted by a decline in American productivity, unfavorable reports on the public schools, and President Reagan's assertion that "teachers should be paid and promoted on the basis of their merit and competence." Although a glance at the history of merit pay suggests that demise is likely, researchers have recently examined a small number of enduring programs. In 1984, Cohen and Murnane studied six merit pay plans, all of which had been in effect for at least five years. Although they had sought to review plans from a diverse selection of districts, in fact, their sample was necessarily homogeneous since all of the successful programs were small and located in advantaged communities. These districts hired teachers selectively and paid them well. Working conditions were excellent, and in those districts that were unionized, cooperative labor-management relations prevailed. Murnane and Cohen could find no
urban districts with long-lasting merit pay plans, and not "even one documented case of a large, once-troubled school district that had successfully used merit pay to improve its performance." They found that even these successful programs did not vary teachers' compensation solely on the basis of classroom performance or student test scores. In most districts, extra pay was rewarded for specific activities (extracurricular, professional, and community service) than for meritorious teaching. The authors found that the emphasis had shifted from classroom teaching to tasks outside the classroom, that merit pay had become extra pay for extra work. Murnane and Cohen speculated that other programs may well have failed because there were no acceptable answers to two questions posed by teachers: "Why is 'worker X' being paid more than I am?" and "What can I do to earn higher pay?" Because the enduring plans did not rest primarily on debatable assessments of classroom teaching, but rather on demonstrable contributions outside the classroom, teachers accepted the pay plans as equitable.  

This analysis suggests that even in the most favorable circumstances, true merit pay (that is, pay that varies on the basis of teaching effectiveness) is not likely to succeed. In districts with poor pay and working conditions, it is not likely to survive. Astuto and Clark have observed that "none of the local plans is an exemplar. Most local policymakers argue, at best, that the plan is working well for them in their local context." In considering that merit pay in Ladue, Missouri, has "endured over the long haul (thirty years) and reportedly is working well," Johnson noted that the "circumstances of that district (wealth, continuity of leadership, stability of staff, community support for schools, and small size) are not those of many districts."  

But what explains the failures of merit pay in other districts? Why does it repeatedly fail to promote changes in teacher behavior and improvements in student performance? Is the theory inadequate or inappropriate? Are the programs poorly designed? Is implementation incomplete? Is merit pay abandoned because of its unintended organizational consequences? A review of research suggests that each of these factors plays a role in the repeated failure of merit pay.

If teachers are primarily motivated by intrinsic rather than extrinsic rewards, the prospect of an enlightened or grateful student offers greater inducement than a bonus in the pay envelope. It is known though, that teachers can be motivated by extrinsic rewards for specific achievements or contributions, and that the introduction of such rewards can encourage teachers to attend to the criteria that count while disregarding others.

Coltham, who researched the history of "Payment by Results," a merit pay plan in England during the nineteenth century, found evidence that teachers adjusted their teaching to the program goals, "setting their sights no higher than the standards prescribed." A century later, Pearce and Perry found similar responses to merit pay in the Civil Service: "Managers work hard to obtain good ratings on those standards that are measured. Yet, not all of those actions could be considered 'good management.'" Bacharach et al. have warned that merit pay will increase the level of such instrumental motivation among teachers who "will tend to see students as a means to an end." They have speculated that merit pay might do more than change teachers' attitudes toward teaching: it would change the relationships between teachers and students. Poor students would no longer pose challenges, they would pose threats. Teachers would have incentives to see that poor students are kept out of their classrooms, and they would have incentives to compete for better performers.  

Such findings present an ironic challenge for merit pay reformers. If extrinsic rewards only serve as effective incentives when they are tied to focused goals, then school districts must specify a small number of performance criteria. Yet, if they do designate such criteria, it is likely that teachers will respond selectively to these standards and disregard others. It appears inevitable that the full range of the goals of schooling cannot receive evenhanded attention under merit pay plans.

Shortcomings of Merit Pay Plans

Merit pay failures are usually attributed to shortcomings in the plans themselves and their implementation. Problems frequently identified by researchers include the difficulty of specifying organizational objectives and assessing performance, the costs of maintaining programs, and the unintended organizational consequences they carry. Each will be considered briefly.

Presumably, merit pay is distributed as a reward for workers' contributions to the specified goals of the organization. Lawler has emphasized the importance of clarifying objectives and tying pay to performance. Yet, studies of merit pay have suggested that this
fundamental requirement is rarely met. Most school districts, particularly large urban ones, have no consensus about goals. Johnson recently observed that if schools "pursue many goals simultaneously, expectations for teacher performance will be vague, muddled or conflicting."

Second, there is considerable evidence that problems of inadequate evaluation plague merit pay plans. Teacher evaluation is a notoriously poor process, and tying pay to assessments compounds the problems. Hatry and Greiner have called evaluation the "key stumbling block to incentive programs." In 1961 a review of merit pay plans in 49 large districts by Davis concluded that unsatisfactory evaluations and teacher dissension were the main reasons the programs were discontinued between 1938 and 1960. In 1979, Porwoll studied school systems that had dropped their merit pay plans and found that over 23.1% of them did so because of "difficulties in administering the plans, especially in evaluating personnel and applying the criteria fairly." Jamentz, who analyzed data from four of the districts studied by Cohen and Murnane, noted the "basic mismatch between merit pay plans and the work teachers do." As Lortie observed in response to a question about merit pay, "the heart of the problem is that there is little agreement over what the art of teaching is."

Issues of validity and rater reliability complicate the evaluation process. Based on their study of merit pay, Astuto and Clark conclude that "there are not now, nor will there be, performance criteria and evaluation processes that are both comprehensive and complex and valid, reliable, and equitable." In a related study of performance-based layoffs, Johnson found that principals within the same district were inclined to use different criteria in evaluating staff and to rate teachers in their own schools favorably while criticizing other principals for doing the same. Meyer found that 85% of one company's employees were rated lower by their managers than by themselves, leading him to conclude: "The fact that almost everyone thinks he is an above-average performer probably lies at the root of most of our problems with merit pay plans."

Recognizing that "persons with high self-esteem will consistently and significantly outperform persons with low self-esteem," managers are inclined to make relatively small discriminations in salary treatment... regardless of perceived differences in performance. However, even when administrators of successful merit pay plans make careful distinctions among staff, these distinctions are slight and difficult to maintain over time. Cohen and Murnane have observed that over time a "skewed distribution of quality seems to have encouraged a movement toward universal coverage, which tends to erode the foundations of merit pay."

In an effort to circumvent the problems of basing merit pay on classroom ratings, some school districts use student test scores as the criterion of success. However, psychometrists warn about the hazards of such plans. Berk, who analyzed the measurement, statistical, and design issues involved in the use of test scores as a basis for merit pay, concluded that the practice is "indefensible. It would be exceedingly difficult, if not impossible, to logically, theoretically, or empirically justify the practice as fair and equitable for all teachers."

The principles of merit pay require that individuals be rewarded for their efforts—that pay be closely tied to performance. Johnson, however, has argued that the individual contributions of teachers are difficult to isolate:

If the product of schooling is a well-educated student, individual teachers control only a piece of that product. However, performance-based pay plans assess each year of the teacher's work as if it were the entire production process or as if the pieces of that process were simply additive. Teachers cannot control the quality or preparedness of the students they teach, nor can they accurately predict or regulate the uneven developmental rates of student learning.

In response to the problem of isolating teachers' individual contributions, some merit pay plans such as the "Second Mile Plan" in Houston and the "Merit Schools Program" in Florida aggregate student scores and reward all teachers for a school's success. However, Bacharach et al. have argued that such aggregation ultimately defeats the purpose of the program by obscuring teachers' contributions and, therefore, compromising the impact of the incentive.

Program costs present yet another problem for merit pay. Porwoll found that 16.7% of the districts that had discontinued their programs did so because of financial problems. Some had expected to save money with merit pay, but found the costs to be prohibitive. In an effort to control costs and to maintain the selective character of their plans, most districts have set quotas on the number of recipients. Yet, Murnane and Cohen have contended that, if a merit plan program is to receive teachers' support, the rewards must be available to everyone. Similarly, Pearce and Perry, who studied the introduction of merit pay for Civil Service managers, reported that employees were dissatisfied when "a fixed rather than a variable, merit pay budget" required that quotas be set.
Finally, merit pay plans typically bring with them unintended organizational consequences. In his discussion of incentives for knowledge utilization, Sieber noted the importance of considering both the incentives and disincentives for change: "Incentives will not induce action unless they outweigh disincentives, that is, unless imputed benefits exceed imputed costs." The unintended consequences of merit pay constitute its organizational disincentives.

A number of commentators on merit pay have speculated about its potential to divide faculties and to set teachers against administrators. Bacharach et al. concluded: "There is a genuine danger—demonstrated by a considerable amount of experience—that merit pay plans foster dissension, rivalry, and jealousy among teachers." Lawler cautioned that merit pay is inappropriate for organizations such as schools that require cooperative, collaborative work. Johnson recently concluded: "The introduction of merit pay into schools would likely obstruct rather than advance efforts to promote collegiality and cooperation among teachers." Similarly, Goodlad warned, "If you want to tear schools apart, this [merit pay] is the way to do it." Porwoll found that 14.2% of the districts that abandoned merit pay did so because it had "destroyed morale and caused staff dissension and jealousy." Although Cohen and Murnane did not find evidence of staff dissension in the districts that implemented merit pay successfully, Jermantziez concluded that in one district there was some evidence of poor collegial relations and distrust among teachers, despite the fact that "most teachers appreciate the attempt the district has made to recognize extraordinary performance."

Administrator-teacher relationships may be strained as well. Bacharach et al. noted that "merit pay gives teachers a strong incentive not to bring problems to their principal's attention and to be selective about the information they do provide to a principal." Jermantziez found that in one district, principals warn of further challenges to cooperative working relationships with teachers. Teachers describe themselves as more suspicious of their administrators and mistrustful of both their motives and competence as evaluators. These findings are consistent with the views of Bacharach et al. who have argued that merit pay is, after all, adversarial:

The basic purpose of any merit pay scheme is to supplement what is perceived to be the insufficient professional commitment of some teachers by adding inducements formulated and controlled by someone else. The basic purpose of merit pay is manipulative and reflective of distrust in a generally unspecified number of teachers. Levinson has argued that such "paternalism" in industry is destructive: "The consequences of this battle are increased inefficiency, lowered productivity, heightened absenteeism, theft, and sometimes outright sabotage." This review of merit pay suggests that the performance-based pay model does not adapt readily to schooling. Extrinsic rewards are effective for achieving narrow objectives in organizations where pay is already high and working conditions are good. The difficulties of preserving teachers' commitment to their work, of accurately measuring performance and rewarding it with sufficient pay, of maintaining collegiality in a competitive system, and of ensuring that the full range of schooling goals receive teachers' attention are insurmountable for most districts.

CAREER LADDERS AND DIFFERENTIATED STAFFING

While merit pay plans rationalize and reinforce selected aspects of teachers' work, career ladders and differentiated staffing reforms are designed to enrich work and enlarge teachers' responsibilities. Almost two decades ago, Argyris argued that individuals are more productive when their jobs are challenging and take full advantage of their skills and potential. He advocated redesigning work so that it enhances opportunity for the employee to experience greater autonomy and control over factors in job content and job context, lengthens the time perspective, and decreases dependence and submissiveness upon the superior. Although teaching is demanding work requiring creativity and versatility, it is repetitive. Despite the variety of classroom challenges, one year can look very much like the next. Teachers often report that they are discouraged by work that promises the same responsibilities on the first and last days of their careers. Differentiated staffing plans that were popular during the 1970s and career ladder plans that are gaining popularity today are designed to enlarge teachers' responsibilities and introduce the opportunity for promotions into their otherwise unstaged careers. They are intended to serve as incentives for both prospective and experienced teachers who seek increasing variety
and responsibility in their work. In practice, they raise many of the same problems that were discussed above in relation to merit pay.

At least 23 states have already legislated mentor teacher, master teacher, or career ladder plans. Some programs, such as the mentor teacher plan in California establish short-term (one to four years) supervisory roles for selected teachers. Others, such as the career ladder plan in Tennessee, establish a sequence of steps for advancement, ranging from the apprentice teacher, whose sole responsibility is classroom teaching, to the master or career teacher, whose classroom duties are coupled with responsibilities for curriculum development, supervision, and in-service training.

Although career ladder plans do not have the extensive history that merit pay has, they are not novel. Bacharach et al. have observed that differentiated staffing plans, which were popular from the late 1960s to the mid 1970s, “are a close cousin to master teacher plans.” Freiberg has concurred that “the career ladder concept was embedded in a model for school reform known as differentiated staffing.” Like merit pay, differentiated staffing was a short-lived phenomenon: “If continuity is the measure of a new idea’s success, then this innovation registered more failure than progress.”

In the 1970s, Freiberg reviewed the Temple City, California, career ladder model, “the most cited program in the literature of the 70s,” which had four steps from associate to master teacher and provided earnings up to $25,000 a year in 1969 dollars. As with many current plans, master teachers in Temple City were responsible for training teachers, developing curriculum, conducting research, and directing in-service programs. According to Freiberg, this and other differentiated staffing programs failed for many of the same reasons merit pay programs failed: unanticipated costs, teacher opposition, inadequate evaluations, and dissonance. He reported that “the master teacher program became an incentive for a very few . . . and a disincentive for many others.” As with merit pay plans that increase base salaries and become the annuity of a few rather than a bonus available to many, “after four or five years the [career ladder] system became locked in place.”

Because career ladder plans redefine the formal roles and relationships of school personnel, they require more extensive organizational changes than merit pay. Edelfelt, who reviewed the fate of these programs, observed that “the search to identify new teaching roles got shunted aside because it was much easier to identify hierarchical roles.” Moreover, “many teachers were not prepared for the dramatic changes in the work environment. Becoming a team member in a hierarchy takes time, effort, and preparation.”

Bird et al. are currently studying the complications of developing new roles and responsibilities for mentor teachers in California.

Hackman and Oldham, experts on work structure and redesign, have emphasized the complexity of such changes that require attention to the systemic properties of organizations. Job changes made as if they were in an organizational vacuum are almost sure to fail. For this reason it seems essential that work redesign not be construed as a short-term, limited focus “fix” for specific attitudinal and behavioral problems observed among rank-and-file workers.

Such commentary suggests the difficulties current career ladder plans will likely encounter. Even if such plans can be successfully implemented, it is not yet clear whether the opportunity for combining teaching with administrative duties will serve as an incentive for either continued teaching or better teaching. Although the theoretical assumption that work should be challenging seems sound, it is not certain that the work of teaching itself is unsatisfying, or that the new administrative duties will be more rewarding. Rather teachers’ isolation, their lack of recognition and status, and their poor working conditions may lie behind their disaffection. Moreover, as many have noted, career ladder plans provide not only enrichment but also partial exit from the classroom by assigning exemplary teachers supervisory responsibilities. Thus, they may eliminate some problems while creating others. However, if they are designed and administered in ways that discourage exclusivity and promote collegiality, they may serve schools well. It seems likely that if career ladders succeed, it will be because they enrich teachers’ work and provide more opportunities for achieving intrinsic rewards rather than because they create hierarchies or offer entrepreneurial opportunities.

The literature on differentiated staffing and career ladders is sparse and marked by an absence of data from multiple sites. It will be important to document the various structures of such reforms and to pay particular attention to their organizational consequences, their impact on instruction, and their influence on teachers’ career decisions.

ORGANIZATIONAL INCENTIVES

Most current teacher incentive policies depend on extrinsic rewards and are directed primarily toward the individual. Even those initiatives
such as the "Second Mile Plan" in Houston that reward teachers on a schoolwide basis, are designed to appeal to the individual seeking financial gain. There is, however, another set of rewards, so-called solidary and purposive rewards, that seem to provide incentives for educators. Solidary rewards are those that derive "from the act of associating" while purposive rewards derive "from the stated ends of the association."110 For example, solidary rewards might include the congeniality of cooperative work with colleagues while purposive rewards might include the satisfaction of committing oneself to school improvement or the well-being of disadvantaged students. There has been little effort to incorporate either solidary or purposive incentives into current legislative reforms. Yet, some research suggests that intrinsic, organizational incentives, such as collegiality or a commitment to schoolwide goals, may be more effective in motivating teachers and improving teaching practice than individual, extrinsic rewards.

Mitchell et al. have emphasized the importance of such group and organizational incentives, and contended that they are embedded in cultural systems.111 They explained:

In schools and classrooms cultural belief systems create incentive systems for teachers by: 1) establishing work goals, 2) defining techniques to be utilized in pursuing these goals, 3) identifying social norms for collaboration with others, 4) disclosing presumed linkages between work activities and the flow of personal, group, or organization level rewards, and 5) assigning values to the various types of rewards that are available.111

Thus, in pursuit of rewards, such as belonging to the organization or adopting its purposes, teachers coordinate their efforts. Mitchell et al. have observed that when staff accept the "cultural project or mission of the school as their own," they respond to purposive incentives, the "intrinsic rewards and experiences such as the feeling that one is doing significant work or realizing worthwhile social goals."111

Peters and Waterman have recently drawn attention to the importance of inclusive norms and superordinate goals in successful businesses.116 While Deal and Kennedy have analyzed the cultures of such corporations.115 However, research attention to organizational incentives in education has been slight. Several authors have recently documented the importance of one such reward, collegiality, in school improvement efforts. In most schools, teachers work alone, rarely speaking with adults and seldom examining their roles in the larger enterprise of schooling.114 Rosenblatt has concluded that

where teachers are cut off from their colleagues for major portions of the day, the effects are profound. . . . Under isolated working conditions, teachers' classroom goals are strikingly individualistic and require indicators of effectiveness based upon individual beliefs about what should be learned."117

The prospect of collegiality combines the solidary incentive of professional participation with the purposive incentive of a commitment to better schooling.

There is some evidence that collegiality is an essential ingredient in effective schools. Little found that successful schools were differentiated from less successful schools by patterned norms of interaction among staff. In successful schools, "teachers valued and participated in norms of collegiality and continuous improvement (experimentation).118 Similarly, Lipsitz has reported that in the four exemplary middle schools she studied, a collegial norm of intense effort was "self-imposed" by staff. "The psychic rewards for teaching in these schools are very high."119 Based on a review of the literature, Rosenblatt has argued that the effective school "relies almost exclusively on its organizational goals as incentives to attract and retain teachers." She observed that "high group cohesiveness in effective schools directs teachers toward adopting student achievement as their primary mission."120

Although there is some recognition that the organizational incentive of collegiality influences teachers, little is yet known about how it functions. Can it motivate all teachers? Does it require or defy administrative manipulation? Does it compromise teachers' prized autonomy or, as Sieber suggests, contribute to a larger sense of professional autonomy?121 The role of collegiality and other such group-based incentives deserves considerably more research attention in the search for ways to attract, motivate, and retain effective teachers.

SUMMARY

It is important to distinguish in both research and policymaking among incentives that attract teachers, those that retain them, and those that improve their practice. Better pay and higher status might draw those with an interest in teaching to the profession, but probably are not sufficient to retain or sustain outstanding staff members. Research stresses that the best teachers stay in teaching because of intrinsic rewards, although they may be forced to leave because of poor salaries or working conditions. Therefore, efforts to retain outstanding teachers
should probably focus on ensuring that they can do their best work without disruption or financial hardship. As Lottie reminds us, "teachers want to teach."\textsuperscript{12}

Improving the practice of current teachers, however, will likely require more than improved pay, status, or working conditions. Research suggests that it may require the orchestration of organizational incentives that encourage teachers to think about their work in new ways and commit themselves to new standards and goals. Such purposed and solitary incentives might well coordinate teachers' efforts, provide them shared purposes, enhance the conditions of their work, and reaffirm their professional identity. Although little is yet known about such incentives, it is clear that they are complex, and difficult to manipulate with policy, and warrant further research.

Incentives policies have gained legislative popularity largely because of their seeming simplicity. Although many change agents presume that teachers are motivated by money and are intentionally withholding their best efforts,\textsuperscript{12} 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. Moreover, it is not yet clear whether there is only one solution to be discovered through research and implemented through policy, or whether there are many local solutions that are best devised by local participants.

NOTES

1. The author wishes to thank Martha McCarthy, Richard Murnane, and Barbara Neufeld for their helpful comments on earlier drafts.
4. The National Commission on Excellence in Education's A Nation At Risk reports that international comparisons of student achievement "reveal on 19 academic tests that American students were never first or second and, in comparison with other industrialized nations, were last seven times."

7. This theory was first elaborated by V. Vroom, Work and Motivation (New York: John Wiley, 1964). It has been elaborated by F. E. Lawler III, Pay and Organization Development, (Reading MA: Addison-Wesley, 1983).
17. W. H. Baugh and J. A. Stone have shown that teachers change teaching positions from district to district in pursuit of higher wages in "Mobility of Wage Equilibration in the Educator Labor Market" (Eugene, OR: Center for Educational Policy and Management, 1982).