Merit Pay: Reflections on Education's Lemon Tree

Merit pay is not going to bring people to teaching, nor motivate talented people to remain in teaching.

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According to a 60s folk song, the lemon tree is very pretty and the lemon flower is sweet, but the fruit of the poor lemon is impossible to eat.[1]. And so it is *again* with the current national dialogue about merit pay in the schools.[2] Merit pay was tried as early as 1908 in Newton, Massachusetts, and thereafter with mixed success. But it never took hold in the majority of our nation's school districts.[3]

There is no doubt that President Reagan has adroitly used the concept of merit pay as a deceptive blossom, which looks sweet and pretty to the general public, to blunt the political power of the two national teacher unions. By so doing, he has put the NEA and AFT, who are naturally inclined to support Democratic candidates, on the defensive and neutralized some of their political clout.[4] At least one analyst of the situation believes the GOP's strategy is to pit parents against teacher unions on this issue.[5]

Reagan's offensive has been echoed by a number of state governors who are pushing a variety of "merit" plans of their own.[6] Unfortunately, the public dicussion about merit pay is clouded by doubletalk, hidden agendas, and outright confusion. Those appearing to advocate merit pay use the term to mean at least *three* different things:

- *Performance pay*—salary is linked to some kind of assessment (objective or subjective) of teacher achievement in the classroom
- *Differentiated pay*—salary is linked to the assumption of additional duties in a kind of "career ladder" and represents a division of labor within the teaching cadre
- *Market-sensitive pay*—salary is based on scarcity or the principle of supply and demand.

Straight performance-based pay is not a solution to the most urgent problems facing the teaching profession to-

day, except as politicians attempt to make it applicable by mixing their metaphors and pushing their own agendas for change or reform.

The two most critical problems now facing the teaching profession are: (1) the lack of teachers with quality education backgrounds, and (2) the lack of career incentives sufficient to retain the most talented teachers. In neither case does merit pay as *simple performance pay* pose a realistic solution. On the other hand, both differentiated pay and market–sensitive pay have real potential in broaching these problems.

The Entry–Level Problem

For some time, there has been a decline in the quality and quantity of those who enter teaching. National enrollment in education programs fell by 50 percent between 1973 and 1981. In 1980, only 6 percent of incoming college freshmen said they planned to become teachers, compared to 25 percent in 1968.[8]

In addition, those high school seniors planning to major in education were consistently below their classmates on the 1982 Scholastic Aptitude Test (SAT) in 49 of the 50 states for which data were available.[9] In 1980 the SAT scores of high school seniors planning to major in education were 48 points below the national average in math and 35 points below the same average in verbal ability.[10]

One result is the very real national shortage of adequately prepared math and science teachers. The National Science Teachers Association estimates that there were approximately 199,400 math and science teachers at work in public and private schools during the 1982–83 school year. Of these, perhaps 60,000, or roughly 30 percent, had little or no training in their subjects.[11] Shortages are also being felt in other areas, and the prospect of future nationwide teacher shortages is very real. This dilemma is already being call a national "crisis." How would the three types of "merit" pay offer a solution to the entry–level problem facing teaching as an occupation?

Merit Pay as Performance Pay. Straight performance pay would simply give teachers who were dubbed "superior" a higher salary than other teachers. On the face of it, the argument appears attractive: if some teachers were to earn higher salaries, then those examining teaching as a career could see that with outstanding performance they could earn higher wages. A closer look reveals that this would probably not occur, and would not resolve the entry–level problem facing teaching today.

Data released by the New York State Educational Conference Board showed that the average starting salary for a person with a bachelor's degree in teaching in New York was $14,000, the lowest of ten other fields that included accounting, business administration, chemistry, computer science, engineering, liberal arts, and sales–marketing. The differences in salary compared to teaching ranged from $4,264 in liberal arts to $11,000 in engineering.[12]

"The crisis of teaching is in who is going into the profession and the large numbers of people who are choosing not to become teachers. The best and the brightest are definitely not choosing teaching," according to C. Emily Feistritzer, who prepared the Carnegie report, *The Condition of Teaching*.[13] This report notes that the national average starting salary for teachers was about $12,769, and in two–thirds of the states below the national average of $20,531 for teachers.

An examination of most of the merit pay plans proposed recently shows that the bonus for "superior" performance ranges from a modest $1,000 in many plans to $4,000 in California's "mentor teacher" program.[14] Most plans also have limits on the number of teachers who can qualify for merit. In California it is 5 percent. Without substantial and massive upgrading of all salaries for teachers, it is highly unlikely that teaching can close the gap between other occupations.

Performance–based pay plans alone are a feeble and unworkable method to resolve the entry–level problem of making teaching as a career choice attractive to the most able college graduates. Most collegians who are interested in the financial benefits of a profession don't compare the salaries of the "superstars" of other occupational groups, but rather the average salaries, which are a more reliable barometer of general financial and remunerative conditions that exist in a potential career. Teaching is at the bottom of the barrel in the U.S.

Advocates of performa pay as a key to productivity in the work force should take note of the Japanese example. In Japan teaching is a relatively popular profession, and teachers enjoy long vacations and are well paid. Japanese teachers are given tenure when they are hired and receive pay increases *solely by seniority* unless they assume administrative positions. These are not attractice because administrators must retire at age 60.[15]

Japanese productivity is the envy of the world, growing 197 percent between 1963 and 1977 compared to only 39 percent in the United States in the same time period.[16] Japanese student achievement on international tests in math and

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science is awesome. In contrast, a nationwide survey of U.S. high school students found that interest and achievement continues to decline in science.[17]

Straight performance–based pay as "merit" is not likely to solve the entry–level problem of teaching now or in the future. It has some potential for approaching the retention problem in teaching, but only if the incentives are large enough to be competitive with other alternatives teachers may find attractive in the workaday world, including moonlighting.[18]

Interestingly enough, as a partner in an international accounting and consulting firm for three years, I was subjected to all three forms of salary as compensation: merit (as a bonus for performance), differentiated (as I proceeded through the ranks to partner), and market–sensitive (some areas commanded more compensation than others, particularly in high technology.) Judgments about performance in the private sector are as subjective as those made in the public sector. The existence of a profit as a "bottom line" doesn't relieve the subjectivity problem. This fact is not well understood outside the private sector. The search by educators for so–called objective criteria upon which to base a salary model is illusive and nonproductive.[19] Ultimately, all criteria are subjective in that they rest upon human judgment, which is susceptible to influence and error.

One of the reasons performance pay is more acceptable in the private sector is that average salaries are already much higher than teachers, and bonuses even for moderate performers can be substantial. Of course there is no tenure, but the fact remains that subjectivity per se is not the issue. Overall productivity is a factor, along with the willingness to take risks. Also, the private sector is much more market sensitive to salaries than is the teaching profession.

A conversation I recently had with an educational colleague on the issue of performance pay showed me once again the *real issue*. It is the capability of the system to deal with the lackluster performer. The current salary model used in most school districts does not enable compensation to track performance. My colleague said, "I know merit pay doesn't solve the problems of entry or retention, but at last I can get at the turkeys." There may be some truth in this matter.

Records of the New York Board of Education show that of 125 cases brought against teachers, only 17 were fired. The Board attorney commented, "Obviously, the longer a case takes, the harder it is to prove.[20] According to AASA, about *one out of ten teachers* is incompetent.[21] Yet in 1981–82, only 128 teachers in New York State were brought up on charges relating to discipline, less than 1,500 to 1.[22] While these facts are frustrating, the situation is not new and has spanned both shortage, surplus, and shortage of teachers. It's another problem, serious, but not in the same league as those now facing the teaching profession in the 80s.[23]

Differentiated Pay. Differentiated pay is based on the well–established principle of varying salary according to the level of job responsibility. The practice is widespread in education, particularly within administrative ranks. But there is no appreciable salary differentiation within the teaching cadre itself, unless one can make a case for the role of department chairperson, which, in too many school systems, consists of a small stipend for paper shuffling.

In the heyday of differentiated staffing in the late 60s and early 70s, several plans attempted to differentiate between the beginning ranks of teachers with the remainder of the teaching force. The most famous was the Temple City, California, model begun in 1965, which contained the positions of Associate Teacher and Staff Teacher.[24] The Associate Teacher was conceived as a beginner's position, one that would take perhaps ten steps on a salary schedule, followed by the more experienced Staff Teacher slot with five steps on a salary schedule. These two positions in a four–level teacher hierarchy comprised approximately one–fourth of the teaching staff, with the remaining three–fourths composed of Senior and Master Teachers.[25]

The Associate Teacher role expanded the pool of persons available for teaching not by offering more incentives by raising the salary base, but by creating a position of less than full time for working mothers or other persons interested in part–time work. From a financial perspective, the total dollars in staffing for the more advanced positions, which served as career retainers for some teachers, were offset by creating positions of less advancement and responsibility lower in the hierarchy. Total dollars for staffing were envisioned to be approximately the same after startup costs, including the provision of "grandfathering" existing personnel.[26]

It is worth noting that in Temple City and elsewhere the Associate Teacher role was abandoned, largely because there was a lack of true "differentiation" in actual classroom teaching responsibilities. The concept of the "beginner" or less than full–time teacher is still not common in public education, and the idea of an "adjunct" teacher is nonexistent.

Staff differentiation as envisioned in the 60s did not address the problem facing the profession today—the obvi-

ous financial hiatus between choices at the collegiate level and the overall attractiveness of teaching as a profession. In this sense, staff differentiation was more of a solution to the teacher retention problem. The same can be said of the contemporary Temple City "look alike" plan and the Tennessee "Master Teacher" paradigm, except the approach in the Volunteer State was also tied to a 20 percent increase in all teacher salaries over three-and-a-half years.[27]

The Tennessee "Master Teacher" plan created a four–tiered teacher hierarchy promoted by licensing. At each step the state contribution increased and teachers were utilized differently. The similarity to the Temple City job descriptions is striking in that the basis of salary is experience, organizational differentiation, and a different work year for each of the four teaching roles.

The ultimate cost control mechanism existed in the limitations of each position. For example, the Tennessee plan envisioned paying for only 11,500 Senior Teachers and 4,650 Master Teachers.[28] A differentiated staff and pay plan will not be effective in dealing with the entry–level problem faced by teaching today *unless* (1) the overall salary base is substantially raised and maintained against inflation, and (2) the concept of market–sensitive pay is also utilized.

Market–Sensitive Pay. Market sensitive pay has little to do with "merit." It is keyed to the idea of supply and demand and the principle of scarcity. Twenty–five years ago Myron Lieberman discussed the economics of a unitary profession in his then (and now) controversial book, *The Future of Public Education*. In a still current and heretical passage, Lieberman cautions:

> The worst consequence of regarding every person who teaches in public schools as a member of the same profession is that this policy weakens the quality and quantity of instruction in areas where good teachers are most urgently needed. The present crisis in high school physics is an illustration of this fact.[29]

Lieberman went on to describe the requirement to alter compensation according to need and visualized a personnel hierarchy within subject areas that predated the Temple City model of the 60s and the Tennessee plan of the 80s.

Furthermore, he dealt with the financial implications by stating that turnover could be confined to lower, less–costly hierarchical teaching levels, and lower–level positions could be utilized to pay for the higher positions. In a somewhat apocryphal comment, he anticipated the negative teacher response to both differentiated and market–sensitive pay when he said, "Whenever I have suggested to teachers that one of our educational frontiers is the development of a hierarchical personnel structure, the character of their objections has tended to confirm my conviction that such a structure is feasible."[30]

Of all the potential pay schemes, market–sensitive pay is the most durable and immediate solution to entry–level problems. It has already been utilized in determining faculty salaries at many colleges and universities. Market–sensitive pay would fund positions in math and science at higher rates than other curricular areas, not because teachers would be better but because the requirements to attract candidates from the available talent pool could not be competitive unless it did so.

The situation in math and science is likely to get much worse since by the 1990s there will be a secondary enrollment increase and a simultaneous "retirement bulge." By 1995 at least 40 percent of the nation's science and math teachers will be retiring.[31]

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However, as Lieberman pointed out in the late 50s, as long as the standard salary schedule reinforces the myth of the unitary teaching profession, market-sensitive pay will be denied and teaching will be unable to remain competitive in the face of the "brain drain" away from its ranks.

The Retention Problem

The second most critical problem facing teaching is the retention of the most able practitioners. The only "career ladder" that exists for teachers is into school administration. Unlike teaching in the college ranks, public school elementary and secondary teaches have no career ladder. There is no place to go *within* the teaching cadre. In fact, the absence of a senior cadre of experienced and talented teacher practitioners "impedes the development of organizational arrangements found in established professions."[32]

As sociologist Dan Lortie has observed, at the heart of the problem is a true "lemon tree" dilemma. Teachers as a group have focused on internal rewards rather than external rewards. This posture denies boards of education and their administrators control over teacher behavior. The denial of extrinsic rewards consists of fierce resistance to merit pay plans or differentiation of jobs within the ranks. At the same time, a flat "hierarchy" prevents the development of full professionalization. The issue is one of control and autonomy within the teaching ranks. It has existed for a long time and is a major impediment of trying to retain outstanding teachers.[33]

Merit Pay as a Solution. Merit pay as performance pay will not create a sense of career without also being based on differentiation within the ranks. Few flat merit pay plans propose such changes. Rather, the approach is quite simplistic: somehow identify the "superior" teachers and pay them more. It is at this point that teacher union responses come into play. While historically both the NEA and AFT have adamantly opposed performance pay, at least the AFT has apparently softened its public position on the concept. But objections still center on the question of objectivity of judgment and observations that the motivation of some of the proponents really are to avoid upgrading the universal salary base for all teachers.[34]

Teacher union strategy has focused on *standardization* of salary, which tyically means "front loading" salaries to the detriment of teachers at the upper end of the salary schedule.[35] As a result, even beginning teachers can see that long service brings meager career rewards. Any deviation from this strategy—of "front loading" salaries in the form of merit, differentiated, or market-sensitive pay—directly challenges many decades of teacher union energy. So teacher unions have a stake in the maintenance of the current strategy. Despite any softening of language, they are not likely to make a revolutionary reversal no matter how serious the teacher shortage may become. Nor are problems facing the teaching profession likely to be solved unless they can become compatible with strategies that do not threaten teacher unions.

Most merit pay plans address retention since the performance of beginning teachers is unknown. The focus of merit pay is on the individual teacher rather than a group of teachers, despite the fact that group-based merit pay or bonus plans may have greater potential in this regard. Only the Arizona-Mesa Differentiated Staffing Project utilized group-based assessment in its staff differentiation experiments of the early 70s.[36]

For merit pay to be effective, the size of the "merit award" should be at least 3

percent of base salary or "the program probably is not worth its administrative time."[37] Lawler comments:

> In times of high inflation, this number probably needs to be much higher. Of course, some individual awards should be much higher than 3 percent in order for individuals to feel that if they do particularly well, a large award is possible.[38]

While some proposed merit awards for teachers approach or exceed 3 percent of the base, the base is *so low* as to make a 3 percent award almost meaningless. For example, the national average salary for a teacher is $20,531[39] of which 3 percent is $615.93. If this were divided over a work year consisting of 180 days, it would total $3.42 per day. Assuming a six-hour work day, the amount per hour would come to 57 cents. Clearly, those who leave teaching for better salaries are not going to be retained by these numbers.

The greatest barrier to effective merit pay is not the traditional teacher union phobias about subjectivity or administrative favoritism, but the niggardly posture of school boards about the size of merit awards. The prevailing nickel-and-dime mentality of many school boards would prevent the allocation of significant amounts to retain the kind of talent that is mobile and could (and will) command greater salaries in the private sector.

Differentiated Staffing. Differentiated staffing in the 60s and early 70s was a major thrust to deal with the problem of teacher retention.

> Compared with most other kinds of middle-class work, teaching is relatively "career-less." There is less opportunity for the movement upward which is the essence of career. People who work in highly established bureaucracies, for example, can move up a hierarchy of statuses, each movement involving a significant gain in income, and they can frequently do so without endangering their occupational identities. . . .
>
> But in contrast to the larger packages of money, prestige, and power usually found in other careers, the typical career line of the classroom teacher is a gentle incline rather than a steep ascent. The status of the young tenured teacher is not appreciably different from that of the highly experienced old-timer.[40]

The problem with a career ladder in the differentiated staffing experiments of the 60s and 70s was the locus of differentiation. In Temple City and elsewhere (and in the current Master Teacher plan in Tennessee), the locus was overwhelmingly administrative-related tasks and a longer work year. Teachers were paid more for the assumption of tasks related to supervision, curriculum development, and attendance at decision-making bodies than for their *directly related duties as teachers in classrooms*.

What we learned from those experiments, and which current plans are about to repeat, is that teaching roles can be divided, but if the locus for the division of labor is basically administrative and not rooted in the technical expertise of the teacher, only tertiary benefits can be claimed for students. This is a perfect example of a solution to a teaching problem (the lack of a career ladder and hence the lack of holding power for the profession) that is not necessarily a solution to a learner problem, *more effective teaching and learning*.

It is the profession's failure to differentiate among students that is at the heart of the problem—although it has begun to differentiate among its clientele in special education. The proliferation of learning disability specialists as teachers and other kinds of roles is rooted in the learner and not in the bureaucracy. Thus, differentiation can be tied to learners rather than to organizational needs. In retrospect, the initial reaction of David Seldon of the AFT was probably correct regarding early concepts of staff differentiation: "The last thing education needs is more bureaucracy."[41]

My own research on who the concept of staff differentiation appealed to the most, in terms of a career ladder among teachers, indicated that staff differentiation does not have universal appeal to teachers at all points on the standard salary schedule. The data suggested that it was generally most appealing to teachers on the first and second salary levels and to top-salaried high school males and secondary teachers generally. Males at most salary levels appeared to be more positive to staff differentiation than females.[42]

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The implications in the 70s, and now in the 80s in terms of the proposed Master Teacher plan, are that a unidimensional rationale for staff differentiation is bound to fail, since the teacher audience appears already well–differentiated informally before it ever is set into the existing organizational structure. Staff differentiation does not enjoy universal appeal among teachers. Teachers view it as a solution to a male problem with teaching as an occupation."[43]

Market–Sensitive Pay. Market–sensitive pay has been advocated by at least one national task force as a possible solution to the retention and recruitment problem.[44] It would mean paying teachers in some fields more money simply because they represented a scarcer supply of candidates, as in the case of math and science.

While mechanisms for actual payment are much simpler because they do not relate to performance or differentiation, the teaching profession has been loath to accept the idea of anything other than a strict egalitarian approach toward compensation. In this respect, the "myth of the unitary profession" continues to dominant our thinking. To some it appears to be unfair as well. Yet the fact remains that in an open, competitive economy, there is no solution for the teaching profession even if substantial increases were granted to raise all salaries of all teachers. Some fields would still outstrip the capability of being competitive with the most advanced sectors of the private economy. The gap could be narrowed but never closed.

The Bottom Line

What then are the advantages and disadvantages of these three alternatives to the standard salary schedule? Figure 1 indicates an "advantage" or "disadvantage" to the three forms of salary compared to Lawler's four criteria derived from research on rewards and individual satisfaction with those rewards.[45] Lawler concluded that:

1. Satisfaction is a function of the perceived congruence between how much an individual receives and how much he or she feels should be received

2. Satisfaction is influenced by comparisons to others in similar positions

3. People have a strong tendency to misperceive the rewards of others, particularly in a secretive working environment

4. Overall job satisfaction is a combination of intrinsic and extrinsic qualities received from that job.

Figure 1 rates merit or performance–based pay a "disadvantage" on the first criterion because of the meager amounts actually offered for "superior" teachers. In contrast, both differentiated pay and market–sensitive pay would offer and have offered greater amounts with visible and obvious linkages to external indices. The element of subjectivity is thus lessened as a negative factor.

On Lawler's second criterion, merit pay again is perceived as a disadvantage because of the subjectivity that often fails to disclose the reasons why one teacher receives a merit increase and another doesn't. Whereas in the case of both differentiated pay based on job functions and responsibilities and market–sensitive pay, the criteria for comparison to others is more straightforward and open.

On the third criterion, two types of pay received a disadvantage, with merit pay the worst offender. The generally secretive salary climate that exists in most school districts accentuates the negative rather than the positive. Such climates are reinforced by the impact of collective bargaining, which occurs behind closed doors and often pits one professional group against another. My experience in Temple City showed a loss of morale among teachers who were not selected as Senior or Master Teachers.

Market–sensitive pay is the most objective way of presenting average competitive salaries outside of schools, and could be used, as the CPI is now, as a kind of objective barometer for establishing a cost–of–living increase in board–union salary clauses.

On Lawler's fourth criterion, only differentiated staffing and pay address the intrinsic questions for a professional "career." Both forms of pay as "merit" or "market–sensitive" leave aside any kinds of changes within the teaching cadre in terms of staffing patterns, teacher utiliation, career advancement, or group decision making. One of the most lasting features of the Temple City plan was the altered decision–making structure, with teachers sitting with administrators in previously administrator–dominated decision–making groups.

My own preference for the most appropriate short–term solution would be the adoption of market–sensitive pay, followed by a longer term effort to more adequately differentiate actual classroom teaching functions in order to construct an internal teaching career ladder. Master teachers should remain teachers 100 percent of the time and not have to become part–time administrators with one foot in the classroom door.

Figure 1. Alternative Salary Approaches Rated on Lawler's Conclusions About Rewards and Individual Satisfaction

Criteria	Merit Pay	Differentiated Pay	Market-Sensitive Pay
1. Congruence between actual and perceived rewards	D	A	A
2. Comparison to others in similar positions	D	A	A
3. Misperception of rewards of others	D	D	A
4. Overall job satisfaction both intrinsic and extrinsic rewards	D	A	D
TOTALS			
Disadvantage	4	1	1
Advantage	0	3	3

As for merit pay, it will suffer the same fate as the lover in the lemon tree song who was passed over for another suitor and sang his song sadder but wiser. Judging from President Reagan's speech to the National PTA Convention, he is wrong on two counts about merit pay:

- Merit pay is not a viable solution to any serious problem facing the schools and is itself "an old road that leads to a dead end in learning."[46]
- For merit pay to have a chance of making a real difference, it would require massive amounts of funds that neither school boards, state legislatures, nor the federal government appear to be willing to allocate.

In the current national context, merit pay is punitive and destructive, and will exacerbate the problems facing teaching rather than ameliorating them. The concept is pretty, the rationale is sweet, but the results are too bitter for the profession, the schools, and the children they serve. □

[1]Will Holt, "Lemon Tree," copyright 1960 and 1961 by Reedlands Music Corporation and Boulder Music.

[2]See Recommendation D in *A Nation at Risk: The Imperative for Educational Reform*, A Report to the Nation and the Secretary of Education, United States Department of Education by the National Commission on Excellence in Education, April 1983, pp. 30–31; Thomas Toch, "Reagan's Merit–Pay Advocacy Catches N.E.A. Off Guard," *Education Week* 2 (July 27, 1983): 1, 13; Susan Walton, "Panel Urges Changes in South's Schools," *Education Week* 2 (June 15, 1983): 1, 16.

[3]Glen E. Robinson, "Paying Teachers for Performance and Productivity: Learning From Experience," *Concerns in Education*, Educational Research Service, May 1983, p. 3.

[4]The President singled out the NEA particularly in his attack on those opposed to merit pay in his address to the 87th Annual PTA Convention in Albuquerque, New Mexico. See Susan Page, "Reagan Labels Teacher Union a Hindrance," *Newsday* (June 6, 1983): 6. See also Wendell Rawls, Jr., "Teacher Pay on Agenda for Reagan in Knoxville," *New York Times*, June 24, 1983; and Francis X. Clines, "Undeclared Campaign on Classroom Hustings," *New York Times*, June 24, 1983.

[5]Eileen White, "Education Seen Emerging as 1984 Presidential Campaign Issues," *Education Week* 2 (June 8, 1983): 1, 15.

[6]Thomas Toch, "Governors Throw Their Weight Behind Merit–Pay Movement," *Education Week* (August 17, 1983), p. 5.

[7]Eileen White, "Reagan's 1984 Budget Gets Mixed Reviews," *Education Week* 2 (February 9, 1983): 1, 15; Editorial, "What's the Merit in Merit Pay?" *New York Times*, June 15, 1983, p. A26.

[8]As cited in *What's Right With Public Education in New York State: Resource Manual 1983* (Albany: The New York State Educational Conference Board, 1983), p. 48.

[9]"Education Majors' Average SAT Scores," *The Chronicle of Higher Education* 27 (August 31, 1983), p. 48.

[10]As cited in *What's Right with Public Education in New York*, op cit.

[11]Thomas Toch, "$200,000 Reasons for Concern: A Profile of Those Who Teach Science," *Education Week* 2 (July 27, 1983): 10.

[12]Victor R. Lindquist, "The Northwestern Endicott Report, 1983: Thirty–Seventh Annual Survey of Well–Known Business and Industrial Firms Concerning Employment Trends for College Graduates," *What's Right With Public Education in New York State*, op cit., p. 51.

[13]As quoted in "School Teaching Profession in 'Crisis'," op cit.

[14]Thomas Toch, "Governors Throw Their Weight Behind Merit–Pay Movement," op cit.

[15]Thomas J. Rohlen, *Japan's High Schools* (Berkeley: University of California Press, 1983), p. 176.

[16]Charlie Euchner, "Is the Race to. . .The Most Educated? Experts Link Schooling and Productivity," *Education Week* 2 (July 27, 1983): 7.

[17]Austin C. Wehrwein, "Science Knowledge Still Declining, Survey Finds," *Education Week* 2 (April 20, 1983): 4.

[18]"More Teachers Turn to Moonlighting, Citing a Need to Supplement Salaries," *New York Times*, June 4, 1983. This story indicates that 11 percent of the nation's public school teachers hold outside jobs. Gary Sykes, "Incentives, Not Tests, Are Need to Restructure the Teaching Profession," *Education Week* 2 (May 4, 1983): 24, 19.

[19]James E. Bruno and Marvin A. Nottingham, "Linking Financial Incentives to Teacher Accountability in School Districts," *Educational Administration Quarterly* (Autumn 1974): 40–62.

[20]David Medina, "A Scandal for Our Schools? Some Suspended Teachers Get Paid for Years," *New York Daily News*, September 6, 1983, p. 19.

[21]As cited in Robert Brody, "Why It's So Hard to Fire Bad Teachers," *The Newsday Magazine* (May 8, 1983): 7–8, 24–27.

[22]Ibid.

[23]That teacher evaluation and appraisal were issues prior to the current merit pay debate, see Judith Valente, "Debate Over Teacher Appraisals Escalates in D.C." *The Washington Post*, March 9, 1982, p. B1.

[24]John M. Rand and Fenwick English, "Towards a Differentiated Teaching Staff," *Phi Delta Kappan* 49 (January 1968): 264–268.

[25]Fenwick W. English and Donald K. Sharpes, *Strategies for Differentiated Staffing* (Berkeley: McCutchan Publishing Corporation, 1974): 74–90.

[26]Ibid, as envisioned in the early financial projections by Dwight Allen.

[27]Peggy Caldwell, "Tenn. Governor Urges Merit Pay for Teachers," *Education Week* 2 (February 9, 1983): 1, 17.

[28]Ibid.

[29]Myron Lieberman, *The Future of Public Education* (Chicago: University of Chicago Press, 1960), p. 86.

[30]Ibid, p. 99.

[31]Hope Aldrich, "Teacher Shortage: Likely to Get Worse Before It Gets Better," *Education Week* 2 (July 27, 1983): 11.

[32]Dan C. Lortie, "The Balance of Control and Autonomy in Elementary School Teaching," in *The Semi–Professions and Their Organizations*, ed. A. Etzioni (New York: The Free Press, 1969), p. 41.

[33]Ilene Barth, "The Big Lack in Teaching that Repels Good People," *Newsday*, June 26, 1983, p. 7.

[34]See "Commentary," *Education Week*, (August 17, 1983): 18–19, excerpts from a debate between Governor Lamar Alexander of Tennessee; Don Cameron, Executive Director of the NEA; and Albert Shanker, President of the AFT.

[35]Dan C. Lortie, *School–Teacher* (Chicago: University of Chicago Press, 1975), pp. 83–84.

[36]Peter B. Mann, "Differentiated Staffing: The Second Generation," *Arizona Teacher* 59 (January 1971): 13–15.

[37]Edward E. Lawler, III, *Pay and Organization Development* (Reading, Mass.: 1983): 89.

[38]Ibid.

[39]"Schoolteaching Profession in 'Crisis'," op cit.

[40]Dan C. Lortie, *School–Teacher*, op cit., pp. 84–85.

[41]David Seldon, "The Future of Teachers According to the USOE," *American Teacher* 18 (January 1968): 12–13.

[42]Fenwick W. English, "Assessing Teacher Attitudes Towards Staff Differentiation," Doctoral dissertation, Arizona State University, Tempe, 1971.

[43]Ibid.

[44]*A Nation at Risk*, op cit.

[45]Edward Lawler, III, op cit., pp. 11–15.

[46]Susan Page, op cit.