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ABSTRACT

This research focused primarily on the fringe benefit element of total compensation for teachers in 12 states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The specific objectives of the research were to: (1) identify the fringe benefits provided school teachers in the 12 Southeastern Regional Council member States; (2) calculate the approximate dollar value of each of the major fringe benefits and present as individual and total annual wage equivalents; (3) identify the extent to which fringe benefits vary by type and amount within the region; (4) examine carefully, theoretically and empirically, the question of whether free time in the summers is a benefit or detriment to teachers, and attempt to place a value on this leisure time; (5) compare teacher fringe benefits and total compensation in the Southeast with other occupations in industries and nationwide; and (6) make policy recommendations concerning fringe benefits as a part of teacher compensation packages in the Southeast. A short list of references is included. (JD)

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# OCCASIONAL PAPERS IN EDUCATIONAL POLICY ANALYSIS

FRINGE BENEFITS AVAILABLE TO PUBLIC  
SCHOOL TEACHERS IN THE SOUTHEAST

R.B.M. RESEARCH, INC.

Project Director and Principal  
Investigator  
Rodney H. Mabry



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EXECUTIVE SUMMARY

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SCHOOL TEACHERS IN THE SOUTHEAST

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## EXECUTIVE SUMMARY

### FRINGE BENEFITS AVAILABLE TO PUBLIC SCHOOL TEACHERS IN THE SOUTHEAST

This research focuses primarily on the fringe benefit element of total compensation for teachers in the Southeast in order to develop a more complete understanding of the teacher compensation picture. This understanding is necessary for school system administrators to meet their goals of (1) retaining quality teachers already in the system, (2) upgrading the skills of less-qualified teachers in the system, or available to it, and (3) increasing the pool of highly qualified new teachers. Increasing the supply of desirable teachers will require increased compensation in the form of salary and/or fringe benefits.

The fringe benefit element is a candidate for upgrading because our tax laws do not include benefits in taxable income, making them the better bargain for employees and employers relative to salary increases. Compared to a given salary gain, employees can receive the equivalent of more disposable income for the same cost to the employer through appropriate fringe benefits, or, from the employer's viewpoint, the equivalent amount of disposable income can be given through fringe benefits for a lower total cost. Further, fringe benefits are often more highly visible than salary increases and appear more competitive or up-to-date when inevitable comparisons with private industry are made, where the value of fringe benefits amounts to about one-third of total payroll dollars in the United States [U.S. Chamber of Commerce, 1984, pp. 29-30].

Given the need to understand fully all parts of the teacher compensation package and the lack of information regarding fringe

benefits available to teachers in public schools, the specific objectives of this research are to:

- (1) identify the fringe benefits provided school teachers in the twelve Southeastern Regional Council member states;
- (2) calculate the approximate dollar value of each of the major fringe benefits and present as individual and total annual wage equivalents;
- (3) identify the extent to which fringe benefits vary by type and amount within the region;
- (4) examine carefully, theoretically and empirically, the question of whether free time in the summers is a benefit or detriment to teachers, and attempt to place a value on this leisure time;
- (5) compare teacher fringe benefits and total compensation in the Southeast with other occupations in industries nationwide; and
- (6) make policy recommendations concerning fringe benefits as a part of teacher compensation packages in the Southeast.

#### Project Timeframe and Data Collection

The project focuses on the twelve states comprising the Southeastern Regional Council for Educational Improvement. These states are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. In January of 1985 all of the members of the Council's Steering Committee, representing each state, were contacted and certain basic information, as well as their overall cooperation, was solicited. Responses to general questions in our initial letter and to a detailed questionnaire regarding statewide retirement systems, salary schedules, and leave provisions were received during the months of February and

March. In late March and early April, appropriate personnel in each of the twelve state departments of education were asked to identify local districts that would be cooperative with the project and that would represent a stratified sample of districts along the low-to-high continuum of total compensation and, particularly, fringe benefits. A questionnaire was sent to these local districts requesting information on salaries, salary supplements, and various local and state fringe benefits for the 1984-85 school year. Some 42 responses to the questionnaire from local districts, along with booklets, personnel handbooks, benefit pamphlets and the like, were received throughout April, May, June and July. Information derived from published sources as well as from our own collection procedures involving local school officials provides the basis for the fringe benefit portion of this report. The data for the empirical estimation of the value of summer leisure available to teachers came from the Bureau of the Census' Current Population Survey tapes.

#### Organization of Topics in the Final Report

Section II of the Final Report contains a specific discussion of the major fringe benefits available to public school teachers in the Southeast. Benefits are described by state and a tabular summary is given. Section III contains an important discussion of the theoretical basis for determining the value to teachers of summertime leisure. The question of whether summertime leisure is a benefit to teachers or should be considered a constraint (or cost) is answered theoretically, and estimates of the value of that leisure are reported. Section IV presents tables of classroom teacher compensation by

experience and educational level for each state. These tables show the typical contribution to salary by both states and local districts, as well as the value of state and locally offered fringe benefits. Also in this section, teacher fringe benefits are compared with those available in other industries. Finally, Section V which concludes the Final Report contains a summary of available fringe benefits, policy recommendations for possible future action by either teachers or state policy makers, as well as suggestions for future research.

The remainder of the Executive Summary summarizes the important results contained in each of the sections found in the Final Report. Readers are urged to consult the Final Report for important material and details that cannot be repeated here, and especially for an understanding of the context in which the following summarized points are made.

#### Highlights of Fringe Benefits Available to Classroom Teachers

The major fringe benefits available to teachers in the Southeast, as identified and discussed in Section II of the Final Report, are:

- 1) social security,
- 2) retirement,
- 3) medical and hospitalization insurance,
- 4) life insurance,
- 5) leave benefits,
  - sick
  - personal
  - vacation
  - maternity
  - sabbatical
- 6) unemployment compensation insurance,
- 7) worker's compensation insurance,
- 8) other fringe benefits, and
- 9) summer leisure.

Social Security. All but three states require participation by classroom teachers in the federal social security program with the employer contribution paid by the state or local district. Louisiana and Kentucky teachers are not covered by social security and a significant minority of local districts in Georgia (about one-third) have chosen not to participate in the program.

Retirement. All twelve states in the region have mandatory state retirement plans. The state plans which provide most benefits are those in Louisiana and Kentucky, which is to be expected, since teachers in these states are ineligible for social security. Maximum annual retirement benefits after thirty years of service in Louisiana and Kentucky are about 75 percent of salary, compared with a range of from 47 percent to 64 percent in the other ten states. Florida's retirement system is unique among the state systems in that it is the only state of the twelve that pays all system costs, not requiring any contributions from its teachers.

Medical and Hospitalization Insurance. In five of the twelve southeastern states, medical and hospitalization insurance is left to local districts with varying degrees of direct or indirect funding flowing from state governments. These states are Florida, Louisiana, Mississippi, Tennessee, and Virginia. The other seven states provide state-wide health plans with annual costs to the states varying from \$302 to about \$780 per teacher.

It is in this fringe benefit area that the first deviation from the range of benefits available to employees of private firms is found. Large private firms began offering extra dental and other specialized plans earlier than state-wide school systems, which are certainly not

small industries. Of the more state-oriented systems in terms of health plans, only South Carolina has a partially-state-paid dental plan, for example, and this only became available in February of 1985. No state has any vision or auditory insurance plans available, nor did any local districts that we surveyed. A few districts did offer subsidized dental plans.

Life Insurance. The area of life insurance appears to be one of the neglected fringe benefits for teachers. Very little life insurance is provided by states or local districts to teachers. When it is available as a benefit, the amounts are often quite small, ranging from \$3,000 to \$10,000. On the other hand, several states do offer a one-year-of-salary (or some other multiple) benefit at death, sometimes as a part of the retirement system's benefits. In some cases it is a tricky business to determine whether this is a paid benefit or not. In Georgia, for example, five-tenths of one percentage point is added to the teacher's contribution to the retirement system to pay for their life insurance benefit. Virginia's shared-cost life insurance plan provides the best coverage in the group. The primary benefits are (1) life insurance at two times salary, (2) double that amount for accidental death, and (3) dismemberment insurance, costing the teacher \$7.20 per thousand dollars of insurance.

Leave Benefits. All states set minimum sick leave policies ranging from nine to thirteen and one-half days per contract year. Several districts surveyed add one to three days to that minimum. Accumulation of sick leave is allowed in all states from 45 days to an unlimited amount. Only five states allow teachers to take personal leave that is not charged against sick leave. These states are Alabama, Kentucky,

Mississippi, North Carolina, and Tennessee. Several of the other states let local districts set their own personal leave policies.

Extended sick leave is not generally available as a specified benefit, though most local districts probably allow teachers to return to their jobs in the system, creating a defacto extended-leave-without-pay policy. Louisiana, Mississippi, and North Carolina do have specific extended leave policies.

In all states, except North Carolina, maternity leave is first charged against sick leave. North Carolina allows any teacher, male or female, to take up to one full year of leave without pay for the birth or adoption of a child. No paternity leave is recognized in any of the other states.

Only Louisiana offers a true, employer-paid sabbatical leave policy for its teachers. It is very generous in terms of pay and criteria used to qualify for such a leave.

Only North Carolina offers true vacation leave for its teachers, in addition to holidays, personal leave, and summer leisure. The length ranges from ten to twenty-one days depending on years of service. This is a tremendous benefit in North Carolina and coupled with generous maternity and extended sick leave policies makes this state the clear leader in leave benefits.

#### Summary of Results and Methods of Valuing Summer Leisure

In Section III the question of whether working less than a full year is a benefit to teachers or a burden to bear is investigated. Both views are certainly held by individual teachers and are not mutually

exclusive. The language used, however, needs to be made clear. The teachers who say they wish to work in the summers are not really seeking more work; they wish to have the opportunity to earn higher total incomes. Thus, these people do not mean to say that having their summers free is of no value, but rather that they would value a proportionately higher income more than they do the leisure time they now receive. Other teachers, who say they like the benefit of summer leisure, simply value the leisure more than the extra salary they would expect to receive if they were able to work two or three more months. Therefore, summer leisure does have value, to both groups, and Section III develops a theoretical model for assessing the value of that leisure and reports the results of some empirical tests.

The theory in Section III suggests that, though summer leisure has value, restricting teachers to an arbitrarily shorter work schedule in a competitive labor market (across industries) will require that teachers be paid a premium for accepting this restriction on total work time and, therefore, on total income. For 1977 data, it was found that teachers receive a premium of about 9.9 percent of their salary compared with all other workers of the same educational level and experience. In other words, teachers' hourly or daily wage rates are nearly ten percent higher than in other occupations to compensate them for accepting the restricted work schedule and resulting restricted income. Of course, this is the figure for the average or typical teacher. Some, who do not value summer leisure highly, are not satisfied with this premium and want more or, rather, the opportunity to earn more income by working longer. For others, who value their summer leisure

highly, this premium is far more than sufficient to induce them to accept nine-month positions.

From this theory and the estimated premium for the average teacher, a method for calculating the value of leisure for teachers is devised. The value of the summer for a given teacher for whom leisure is a normal good, must lie between zero and a pro rata extension of the teacher's current salary less the premium. The latter is true because the premium would soon be lost in competitive markets if teachers were able to work a full year. Within these constraints, we felt that the true average value of summer leisure is represented by the opportunity cost of income foregone by choosing not to work in the summers (giving up at least the minimum wage) at a minimum and being unable to earn a continuation of teachers' highest income possible (giving up other occupations where a pro rata extension of teachers' current salaries less the 9.9 percent premium could be earned) at a maximum. Hence, throughout the remainder of the analysis, the value of summer leisure is calculated as the mean of these minimum and maximum amounts.

The major results of our investigation of the value of summer leisure can be summarized as follows:

1. summer leisure has positive value for the typical teacher;
2. teachers receive a 9.9 percent premium in their current salaries as compensation for a restricted work schedule;
3. teachers on average are willing to work more weeks at a lower wage rate (by about 9.9 percent) in order to increase their total annual compensation;
4. teachers on average are willing to work more hours per week at a lower hourly wage rate (5 more hours at about 3.25 percent less per hour) in order to increase their total annual compensation; and

5. based on (3) and (4) above, school administrators could open schools year round and lower per pupil education costs significantly, for a given number of per pupil instructional hours, and assuming mostly fixed physical plant costs, while raising total annual teacher compensation.

Values of Classroom Teacher Fringe Benefits, Typical Salary,  
Total Compensation, and Comparison to Other Industries

Though typical salary amounts are reported in Section IV of the Final Report, the primary focus of that section is on fringe benefits. Tables 4-A through 4-J in the Final Report contain fringe benefit valuations, along with typical salaries, for 1984-85 by state for each of ten teacher education/experience categories, excluding any estimated value for summer leisure. The typical salary received by beginning teachers in the local districts surveyed ranges from a low of \$11,975 in Mississippi to \$16,057 in North Carolina, averaging \$14,899 for the southeastern region. At the other end of the education/experience spectrum, teachers with a doctoral degree and twenty years of experience receive a low of \$21,909 in Mississippi (83 percent more than the beginning teacher) and a high of \$31,060 in Georgia (96 percent more than the beginning teacher in that state). For the region, this most experienced teacher category averaged \$25,646 or 72 percent more than the beginning teacher in the region.

The above suggests that teacher experience and educational level significantly affect total salary. Table 4-8 shows that teachers with ten years of experience, but no more educational attainment than beginning teachers, earn an average of \$18,067 in the region or 25% more for the extra ten years experience. Another comparison regarding exper-

ience is the 12 percent larger salary earned by teachers in the region with twenty years experience relative to those with ten years, and both having master's degrees (from Table 4-H, \$22,879, and Table 4-D, \$20,338, respectively). The relative value of years of experience increases much more slowly as higher levels of experience are reached.

Educational attainment raises salaries less rapidly than experience. Teachers with ten years of experience and a bachelor's degree average \$18,607 in the region (Table 4-B). With a master's degree and still ten years of experience, salary only rises to \$20,338 (Table 4-D), a 9 percent increase. Still with ten years experience, salary rises to \$22,571 with a doctoral degree (Table 4-F), an 11 percent increase over the master's or 21 percent more than the bachelor's degree. The results are similar for the range of education levels of teachers while holding experience constant at twenty years: salary rises at a decreasing rate and less rapidly than for increases in years of experience.

Fringe benefits for beginning teachers (Table 4-A), excluding the value of summer leisure, range from \$2,974 to \$7,209 and average \$4,794 for the region. As a percent of typical salary, these benefits range from 24.8 percent to 44.9 percent and average 32.2 percent for the twelve states examined. The figures for teachers with doctoral degrees and twenty years of experience are higher in dollar terms, but are much the same as a percent of salary. The range is from \$5,040 to \$14,192 with an average of \$7,899 (Table 4-J). As a percent of typical salary, the corresponding range is from 23.0 percent to 51.4 percent, averaging 30.8 percent.

The mean value of summer leisure as calculated and reported in Tables 5-A through 5-J averages \$2,103 for beginning teachers in the

region and \$3,066 for the top category of teachers. When this benefit is added to other "normal" benefit values, the benefit package for teachers is especially attractive. Total benefits for beginning teachers as a percent of typical salary then range from 40.8 percent in Kentucky to 60.0 percent in North Carolina, with a regional average of 46.3 percent.

At the end of Table 6 in the Final Report, the values for typical salary, fringe benefits and total compensation for the mean of all teacher education/experience categories are given for the southeastern region. That portion of Table 6 is reproduced below.

TABLE 6  
MEAN VALUES FOR TOTAL COMPENSATION, FRINGE BENEFITS  
AND TYPICAL SALARIES ACROSS ALL EDUCATIONAL AND EXPERIENCE LEVELS  
BY STATE AND FOR THE SOUTHEASTERN REGION, 1984-85

Elements of Teacher Compensation	SOUTHEASTERN REGION		
	Mean All Ed/Exp Levels (1)	Percent of Total Compensation (2)	Percent of Typical Salary (3)
Total Compensation Including Summer	\$30,250	100%	144%
Total F.B. Including Summer	9,221	30	44
Mean Value of Summer	2,653	9	13
State Paid F.B.	5,521	18	26
Locally Paid F.B.	1,047	3	5
Typical Salary	21,029	70	100
State Contribution to Salary	17,367	58	83
Local Contribution to Salary	3,662	12	17

The average typical salary for 1984-85 is \$21,029 for teachers in the region, and the average value of non-summer fringe benefits is \$6,568

which is 31 percent of salary. The mean value of summer leisure is another \$2,653 or 13 percent of total salary. Thus, total fringe benefits on average in the region are valued at \$9,221 or 44% of typical salary.

#### Teacher Fringe Benefits Compared to Other Industries

The most recent hard data available on fringe benefits offered in other industries is that contained in the latest report of an annual benefits survey conducted by the U.S. Chamber of Commerce entitled Employee Benefits 1983, published in late 1984. As reported in that survey [U.S. Chamber of Commerce, 1984, p. 30], about \$550 billion was spent on fringe benefits in all industries in the U.S. for 1983. Benefits, which are equal to more than one-third (36.6 percent in 1983) of payroll dollars, are growing faster than either wages or inflation. For the period 1973 to 1983, benefits rose 189 percent while wages rose 140 percent and prices 124 percent. Over that period, the annual compound rate of growth in fringe benefits was a phenomenal 11.7 percent.

A very brief version of Table 7 from the Final Report is reproduced below. It shows the dollar value of fringe benefits per employee for the nation by industry group for 1983 in column (1). Column (2) shows these benefits as a percent of payroll or salary, and column (3) reports these percentages for firms located in the southeastern region. At the bottom of the table, our figures for teachers in the Southeast for 1984-85 are shown for comparison.

TABLE 7  
Fringe Benefits by Industry Type for 1983 and for Teachers  
in the Southeastern Region for 1984-85

Industry Group	Annual Fringe Benefits Per Employee Nationally 1983 (1)	Fringe Benefits as Percent of Payroll or Salary, 1983 (2)	Southeastern Region's Fringe Benefit as Percent of Payroll or Salary, 1983 (3)
Mean for All Industries	\$ 7,582	36.6%	33.9%
Mean for Manufacturing	8,110	38.7	33.4
Mean for Nonmanufacturing	7,163	34.9	34.3
Mean for Southeastern Teachers Without Summer, 1984-85	6,568	31.2	31.2
Mean for Southeastern Teachers With Summer, 1984-85	9,221	43.8	43.8

Interpreting and comparing the results leads to mixed conclusions. The value of fringe benefits given teachers in the Southeast, excluding the value of summer leisure, is \$6,568 which compares unfavorably with the national average of \$7,582 for all industries. This is especially so, considering the fact that the industry data is for 1983 while our data is for the 1984-85 academic year. We estimated that this lag of at least one year in the industry data would increase the figure for 1984 to about \$8,264, assuming a conservative growth rate of 9 percent. On the other hand, the dollar figures are biased in favor of teachers because the industry data is for a full year. Taking three-quarters of the adjusted industry figure for 1984, we would have a crudely comparable total fringe benefit amount for all industries nationally on a nine-month basis of about \$6,198, which is less than what teachers receive in the Southeast even with the value of summer leisure excluded.

If we compare the full year figure for teaching, i.e., including the mean value of summer leisure, of \$9,221 with the full year figure for all industries adjusted to 1984, \$8,264, we find that teachers are typically still ahead of the average for all industries with respect to the value of their fringe benefits.

On a percent of salary basis, teachers in the Southeast fare less well. While fringe benefits nationally in all industries amounted to 36.6 percent of payroll in 1983, benefits for teachers in the Southeast more than a year later amount to 31.2 percent of salary when the value of summer leisure is excluded. However, this figure for teachers in the Southeast rises to 43.8 percent when the estimated mean value of summers is added, an amount that compares more than favorably with other industries.

When compared to firms located in the Southeast where fringe benefits are slightly less, or about 33.9 percent of payroll, either comparable figure for teachers (31.2 percent without summer as a benefit and 43.8 percent with summer leisure included) seems respectable at worst and quite advantageous at best.

These averages conceal important information within the region regarding teacher benefits. Fringe benefits for teachers in particular states vary significantly and some care should be taken when generalizing across all states in the region. It is still true, however, that in no state, when the value of summer leisure is included, does the fringe-benefits-to-salary percentage for teachers fall short of the same figure for either all industries nationally or the southeastern region.

The major results of our investigation of salaries and the value of fringe benefits available to teachers can be summarized as follows:

1. typical salaries in 1984-85 for beginning teachers in the Southeast average \$14,899;
2. typical salaries in 1984-85 for highly educated and experienced teachers average \$25,646, which is little incentive for new entrants to make teaching in the public schools a career;
3. educational attainment appears to raise teachers' salaries less rapidly than experience;
4. fringe benefits for beginning teachers average \$4,794, or 32.2 percent of salary, excluding any value for summer leisure. The corresponding figures for teachers with doctoral degrees and twenty years of experience are \$7,899 and 30.8 percent;
5. the estimated value of summer leisure for all teachers in the region is \$2,653, or 13 percent of salary on average. Total fringe benefits in the region, including the value of summer leisure, average \$9,221 or 44 percent of salary; and
6. teacher fringe benefits, excluding summer, are comparable to private industry as a percent of salary. Including a conservative estimate of the value of summer leisure, however, means that teachers' fringe benefits as a percent of salary exceed those available in private industry.

#### Policy Recommendations

The suggestions that follow are based on the assumption that fully qualified teachers are becoming more difficult to find in most areas, for whatever reasons, and that positive action is required to increase the quantity supplied of highly qualified teachers in given markets.

1. Increase salaries for the more experienced and educationally qualified teachers. While it is not clear whether the average starting salary for nine months for teachers in the Southeast (\$14,899) is low relative to comparable occupations, it does appear that salaries for the career teacher are low. Perhaps North Carolina's longevity pay system could serve as a model.

2. Use a cafeteria style or flexible fringe benefit plan. Teachers are individuals with very different needs. The money spent for their fringe benefits should be put in one lump sum and then teachers should be allowed to "spend" these dollars on a variety of fringe benefits, from deferred compensation plans, retirement plans, life insurance, health and hospitalization insurance, sick leave, personal leave, and so on. The VISTA (Variety of Individual Selections Trust Account) plan available in Dade County, Florida, is an excellent model, though it is far from being fully developed. This approach has several major advantages. First, teachers would be confronted with a large dollar figure for their fringe benefits that would help them see just how much their full salary or total compensation is. Second, the dollars would be used to purchase fringe benefits of greatest utility to individual teachers and would generate greater total satisfaction than they now do. (Such problems as a teacher losing some of his or her benefits entirely because he or she is already covered for hospitalization under a spouse's plan could be avoided.) Third, there would be major long run cost savings for employing school districts or states. Currently, when an employer agrees to pay for a basic, individual hospitalization plan, that employer is locked into paying future cost increases which are generally unseen and quite unappreciated by employees, even though it may cost employers a great deal to appropriate money to cover fringe benefit cost increases.

3. Specific recommendations with respect to particular types of fringe benefits include the following:

a. Retirement plans that have maximum annual benefits of less than 60 percent of base salary should be reexamined to see if an increase in this amount is cost efficient. Loss of more than 40 percent of salary at retirement is not attractive.

b. Life insurance paid or subsidized by employers is often quite low and offers an attractive opportunity to employers to increase a fringe benefit at modest cost. Here, again, a cafeteria style plan would have a considerable advantage by allowing teachers to choose more life insurance or less depending on their own particular situations.

c. Some personal leave days or vacation days should be available to teachers that are not charged against sick leave. More important than that, teachers should be encouraged (as they are in North Carolina) to take some days off to refresh and rejuvenate themselves. We found that many districts treat teachers as industrial workers, which is not at all the image that should be projected by school systems if they really wish to attract highly qualified people.

d. A true (funded) sabbatical leave policy should be in place, especially if it is desirable to have some teachers retrain themselves in areas of short supply, such as science and mathematics. This is difficult to do on a piece-meal, course-by-course basis. Further, teachers who are not completely retraining still need two or more opportunities during their careers to fully rebuild their human capital.

e. In lieu of a good sabbatical program, teachers should be paid to return to school in the summers to refresh and maintain their human capital. They are already paid in the form of salary increments that are directly related to educational attainment. However, these increments were found to be relatively small in some states. For example, in one state, teachers with a master's degree are paid only a few hundred dollars more than teachers with a bachelor's degree and the same experience.

4. Operate schools for a full year and give a significant proportion of teachers the opportunity to teach on an annual contract. This recommendation fits in well with the current push to increase educational output. Remedial, gifted and other special programs could be operated (at least partially) in the summer. Career teachers who want to teach year round could be accommodated, while others could continue to opt for the shorter year. Teachers who work in the summer would accept on average an extended contract at a salary equal to at least their current nine-month salary less 9.9 percent plus one-third of that adjusted figure. In other words, costs per pupil day would fall, allowing schools to be operated at lower unit cost.

5. Rethink the entire teacher career structure to allow opportunities for advancement. Most management theories suggest that people are motivated by more than money, though, of course, income is still of major importance. As a rule, teachers have no opportunity for advancement, except perhaps to become a principal, nor any externally recognized measures of success. While teachers are told they are professional, their career ladders are more similar to those of artists--doing the same work for thirty or more years with only an outside chance of special recognition. Perhaps, Tennessee's new Master Teacher plan will turn out to be a good approach to this problem.

In sum, we recommend that administrators continue to look at salaries, especially at the experienced levels, as the place to upgrade

in order to attract highly qualified young people into the teaching profession; that total fringe benefit levels be maintained, though not necessarily increased; that flexible cafeteria-style individual fringe benefit funds be made available to teachers so that they can select the proper mix of benefits for their own family situations and so that systems can control fringe benefit costs while achieving needed visibility when they do increase monies committed to teacher fringe benefits; that maximum retirement benefits, when added to social security benefits, be at least equal to 75 percent of base salary which is the amount available in the two non-social security states studied; that additional life insurance be made available; that the number of personal leave days be more generous and that teachers be encouraged to take them; that full sabbatical leave programs be put in place to allow teachers to regain and upgrade their human capital every ten years; that teachers be paid to return to school in some summers in lieu of a true sabbatical leave policy; that schools be operated for a full year (or at least some of them) to take advantage of unit labor cost savings and to allow some teachers to receive higher total income (at reduced wage rates) for the year; and that some thought be put into devising a better career path for teachers that includes opportunities to rise in rank or grade so that visible measures of career success are made available to teachers.

#### Suggestions for Future Research

The following suggestions for future research in the area come from several sources. Some are suggested by our results, some by problems we ran into while trying to gather data and analyze it; others

are the result of our on-going literature search and still others are the suggestions from the many system and school administrators whom we contacted during the course of the project.

1. A major longitudinal study of a reasonably large sample of college education majors should be undertaken. This would be a relatively high-cost project that could yield very valuable results over a five to ten year period. We constantly were faced with questions of fact in the current study that we could not answer from the literature. How many beginning education majors switch to other majors in college? What other majors? Why? Are they the good students, poor students or a representative mixture? Of those who complete the degree, what percentage actually begins to teach? How many work second jobs in the summer? How many teachers are satisfied with their careers? How many leave the teaching field? Why? For what other occupations? Are they satisfied in those occupations? Are these percentages any different from those who start out to be engineers or social workers? We would envision a major research group (private or university-related) beginning with a sample of two to three hundred education majors from four or five universities geographically dispersed and then tracking them for as long as useful results are obtained.

2. A small study should be made of the mix of fringe benefits that would be selected by a sample of teachers if they were told they had control of the actual fringe benefit dollars being spent on them in their respective districts. Would they choose to spend their \$5,000 to \$10,000 on more or fewer retirement benefits, more or less life insurance, more or less personal leave, more or less tuition and book costs for college courses, a part-time aide in the classroom to keep records or work with certain reading groups, and so on. All these options would first be priced at so much per unit (per \$1,000 of life insurance, per hour for an aide, etc.) and teachers would be asked to allocate their realistically calculated total amount of fringe benefit money across these categories. It might or might not be good to show them first what the average use of the money is right now, with someone else making the decisions for them. This might give us a good idea of how far off the mark administrators currently are in providing particular fringe benefits and/or levels of fringe benefits.

3. An even smaller study focusing on the "fringe costs" of teaching, such as buying classroom materials, taking courses to maintain certification, and the like, balanced against

the present value of increased future earnings from higher levels of educational attainment and off-setting fringe benefits (such as the availability of teachers' aides) needs to be undertaken. Are there (related or unrelated) benefits, like aides, that off-set having to purchase bulletin board materials? Do salary increments due to educational attainment fully pay for time spent in courses and workshops as well as tuition, books and travel costs that are not currently reimbursed? In other words, is there a net cost to being a teacher that should be subtracted from salary or total compensation?

4. What effect on teacher retention rates does the burgeoning paperwork problem have? Teachers spend literally hours each week keeping track of lunch money (regular cost, reduced, or free) with double entry ledger systems, and keeping track of the progress of students. In South Carolina, keeping track of scores of students on assessment exams is just the beginning. Teachers must record all of those results, and must record how much remedial time or other work is done with individual students to correct problems and bring them up to speed. Records are scrutinized by state education personnel. District records are also required on each student and these are different from the State's. Then there are the local school's records. It is not at all unlikely for a teacher to spend three hours per week on these records or 10% of his or her available instructional time. Or is it? An analysis of the paperwork explosion could be helpful in assessing the severity of the problem. Is paperwork a minor irritant or a major flaw in the current system?

5. Finally, a study of a particular part of the merit pay question--is there a measurable difference between student pre-test and post-test performance that is significantly, if not wholly, attributable to teacher effectiveness--should be made. Teachers will never be accepted as professionals as long as they accept common salary schedules not based on performance or output measures. They are currently paid standard rates plus "input pay." The input pay is for more educational attainment, regardless of differences in output. At least some portion of annual teacher salary increases could be based on output measures or performance. This would enhance the attractiveness of the teaching profession to potential, high-quality entrants. The first objection we hear is that measures of performance would be mostly subjective and poorly done by principals. (Perhaps principals should take more personnel and business administration courses rather than more education courses.) However, this does not have to be the case. In its crudest form, some one or two percentage points of teacher pay increases could be tied to increases in student performance (output) on statewide standardized tests. Better yet, each teacher could participate in an "profit-sharing" or bonus plan, where if their students, on

the basis of a three-year moving average (so one year's aberration would be blended in with other normal years), increase their performance more than the average statewide for that grade or subject area, then those teachers would get some predetermined share of the year-end allocated bonus pool. Some teachers object that tests do not measure everything that is produced, and that is correct, but they can measure the most important element produced by schools: the better ability on the part of students each year to display knowledge of facts and analytical ability. Those teachers whose students consistently perform incrementally better (not better in total since performance levels are related to many non-school factors), should be rewarded. The same objections to merit pay made by teachers could be made in private industry: that particular individuals might not (rarely do) have complete control over the outcome or total performance for the company. But those whose divisions consistently do better than other divisions, or those whose sales gains are higher (per account in the territory) than others get larger bonuses. The incentive system is set in motion. Such a system may be helpful in education.

We would envision a simulation study or demonstration project involving certain schools and their teachers or certain grades where pre-test (from the end of last year or at beginning of the current year) and post-tests exist. A potential bonus pool (amount) that is realistic in terms of what a legislature might enact is determined and made known to teachers. Perhaps one-third of any actual salary increase monies might be placed in such a pool. Then a simulation of the results and likely bonuses to be paid teachers whose students' performance gains are above average could be made. It would be valuable to follow this simulation through three years to see how results might change when using individual annual performance data versus using a moving average of performance gains. In any case, such a demonstration project, if successful and with appropriately publicized results, might well turn the tide of teacher opinion towards moving to a profit-sharing (educational profit, in this case) bonus pay system. Excellent discussions of deferred profit-sharing plans and bonus pay systems exist in business literature (e.g., see Babson, 1974, pp. 139ff).

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