GOVERNOR'S MANAGEMENT REVIEW COMMISSION

OPERATIONAL REVIEW OF FRINGE BENEFITS

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Governor's Management Review Commission

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Report To The Governor's Management Review Commission

Review of The State Health Benefit Program
and
Pension and Retirement Systems

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Executive Summary

This task force was formed to support the efforts of the Governor's Management Review Commission. Our charge was to review the State Health Benefits Program and Pension and Retirement Systems and recommend how to effect immediate and long term savings by changing plan design elements and redefining eligibility for specific benefits.

Estimates of the cost to the State to sponsor the PPO, HMO and traditional medical plan for State and Local employees project an expenditure of approximately $970 million for the twelve month period beginning July 1, 1990. Maintaining the status quo could cost as much as $2.1 billion annually 5 years hence.

The results of the review of the health care plan and associated recommendations can be summarized as follows:

- Total potential savings is approximately $162 million.
- The savings are generated by three distinct types of changes:
  (1) Limit the eligibility for the Rx drug benefit to employees who are not members of HMOs.
  (2) Institute contributions for employee and dependent medical coverage at levels of 10% and 30%, respectively.
  (3) Implement various plan design changes to both share costs (e.g., increase deductibles, co-insurance amounts, etc.) and control utilization (e.g., implement a mandatory mental health and substance abuse precertification and concurrent review program).

Non-quantifiable suggested changes include implementation of a minimum level of benefits that an HMO must provide in order to be offered to State and Local employees, revision of the current HMO contribution methodology, establishing a Flexible Benefit Program to allow employees to contribute toward their medical coverage on a pre-tax basis, negotiated discounts with the hospitals that receive the most revenue from the SHBP and review the current PPO plan in the context of using it to replace the existing traditional medical benefits.

The Pension System is comprised of six components plus the Alternate Benefit Program (ABP). Each component incorporates certain unique characteristics while at the same time a degree of commonality exists throughout. This report limits its review to plan elements that are associated with the majority of State liabilities. As such, the focus is primarily confined to the Public Employees' Retirement System and Teacher's Pension and Annuity Fund.

The four general areas we reviewed are:

- Plan Features - Those aspects of a plan that include attainment of eligibility defined by age as well as eligibility for "special" benefits and provisions associated with loans to participants.
- Plan Design - The basic structure of the vehicle providing the benefits. The typical choice is between a defined benefit and a defined contribution plan.
- Plan Administration - Who does it and how cost effective are the results.
- Investments - An examination of the techniques, asset mix, yield and fund management.

Our recommendations include revising many aspects of the foundations of the various plans. Those aspects likely to produce the most significant improvements include:

Features

- Increasing early and normal retirement ages
- Redefining final salary
- Revising the interest rate on loans to participants

Administration

- Purchasing outside programming expertise

Investments

- Change accounting basis from book value to market value
- Review and modify asset mix on a more frequent, flexible basis
- Retain outside managers to manage at least a portion of the plan design

The cost projections done for proposed changes in the State Health Benefits Program encompass relatively few variables when compared to a formal actuarial valuation of a pension plan. Therefore, this report includes sample actuarial calculations in the Pension section. The State Health Benefits Program cost savings are based upon actual results and generally acceptable forecasting methodologies.

Health Care Overview

Health care costs in this country are escalating to unprecedented levels. Over 11.5% of the 1989 GNP represented health care expenditures. The U S. Department of Commerce is estimating that over $661 billion will be spent for health care in 1990, up 10% from 1989. Average group insurance expenditures per employee have increased from $1,956 in 1987 to $2,748 in 1989 and are expected to surpass $3,200 in 1990. Expressed in a different context, over 10% of payroll expenses are required to fund medical insurance coverage for the average public sector group.[13]

There are many reasons for the rising health care costs, the more significant including:

- **Aging Population** - As the population ages, higher utilization of more intensive (expensive) services results.
- **Technology** - Many new methods of diagnosis and treatment are made possible by technological advances in both equipment and drugs, e.g., Magnetic Resonance Imaging and AZT.
- **Cost Shifting** - The Federal government is assuming an ever decreasing share of the nation's health care bill. Uncompensated costs are passed along to the remaining pool of privately insured patients.
- **Malpractice** - Even though malpractice premiums represent less than 1% of the total cost of health care, the costs associated with the practice of defensive medicine to safeguard against possible malpractice suits is estimated to cost $20 billion to $200 billion annually.[17]
- **Mandated Benefits** - State regulations mandating minimum levels of benefits for insured plans tend to increase costs, especially in the areas of psychiatric care and substance abuse treatment.
- **Dual Coverage** - The increasing number of dual income families has expanded group health coverage so now many people are covered under two plans, frequently resulting in 100% coverage. This reduces any incentive to use the cost containment aspects of current plan designs such as hospital pre-admission programs and second surgical opinion programs.
- **Billing Practices** - There is a quantifiable increase in the number of ambulatory services that are being "upcoded" by providers to maximize reimbursement.

Fundamental changes in the health resource allocation and reimbursement systems are needed before systemic cost containment can be realized. There is excess capacity throughout the entire superstructure, most notably in hospitals and specialty care, that continues to contribute to an inflated underlying fixed cost. Regulatory attempts to deal with the hospital situation include instituting DRGs and requiring a certificate of need for expansion or new construction. However, these measures in combination with a shift in hospital usage (declining lengths of stay, declining admissions, sicker patients being admitted thus generating a higher cost per case) have not produced the degree of anticipated shrinkage of available beds.

Medical education programs continue to produce far more specialists than can be efficiently assimilated into the delivery system. The absolute number of specialists compounds the cost dilemma in two ways:

- Specialists are procedurally oriented. Historical plan design bias has been to reimburse technicians at a relative level in excess of the typical primary care professional.
- A glut of physicians in a geographic area generates a reverse supply-demand curve. As supply increases, so do costs because there are more units of fixed overhead spread across a smaller patient base per practitioner.

Expectations play an equally important role in the rise in health care costs. Americans believe that only the best in health care is good enough. The historical disassociation between the consumer of health care services and the payor is not a solid framework within which to expect an increasing degree of responsible use of the health care system's finite resources.

Arnold Relman, M.D., editor of **The New England Journal of Medicine**, has characterized the development of the health care system in this country as occurring in three distinct stages. The "Era of Expansion" (1940-1970) was represented by rapid growth of hospital facilities, the number of physicians, developments in science and technology and the extension of health insurance to the majority of the population. With the advent of Medicare and Medicaid in the 1960's, nearly 85% of Americans had some form of medical insurance.

The "Era of Cost Containment" (1970-1989) was in reaction to the aggregate increase of health care cost relative to the GNP (4% in 1966 to over 11% in 1988) and the downstream impact upon public and private plan sponsors. The introduction of various pricing mechanisms (e.g., DRG's) as well as service frequency controls (e.g., hospital pre-admission and concurrent review processes) were predictable reactions to the symptoms.

Dr. Relman contends that we are now entering the "Era of Assessment and Accountability", a time in which we must learn much more about the safety, effectiveness and appropriateness of the components of health care in order to control costs without arbitrarily limiting access or lowering the quality of care provided.

Regardless of the structure and process that will support the long term solutions to the health care cost and access challenges, it is clear that important roles will be assumed by Federal and State government, the private sector, the health care delivery system and the insurance/HMO industries. However, as we move toward systemic solutions, one cannot disregard current effective approaches to controlling and sharing costs as a reasonable starting point for modifying the State Health Benefits Program.

In 1982, the New Jersey State Pension Study Commission was formed. Their efforts encompassed a review, analysis and recommendations for changes in the state sponsored health care benefit structure. The Commission's response was delivered in 1984. The Executive Summary contained a Background section that we believe is worthwhile restating and updating. When reviewing the historical comparisons the following paragraphs contain, we note with special interest the absolute and relative magnitude of the costs associated with maintaining a core plan design that has remained essentially unchanged for three decades.

Background

> "On October 1, 1961, Chapter 49 of the Laws of 1961 established a State program of health benefits for State employees and their dependents. On July 1, 1964 this plan was

extended to all local public employees at the option of each public employer. The plan consisted of hospital, surgical/medical and major medical benefits.

In 1974, the State offered a Prescription Drug Plan to certain State employees and in 1976 it was extended to all State employees. The health benefit package was improved again for State employees on February 1, 1978 when a Dental Plan was implemented.

In 1975, the State began to allow employees to choose between the traditional State Health Benefits Plan and Health Maintenance Organizations (HMOs). Today, approximately 15,000 State employees and 11,000 local employees are enrolled in HMOs. [In 1989, the comparable enrollment results were 45,000 and 34,000 respectively.]

In 1983, the State Health Benefits Plan covered approximately 80,000 State employees and 160,000 local employees. [In 1989, the comparable covered population was 68,000 State employees and 160,000 local employees. Another 79,000 employees were members of HMOs.]

As these benefit programs were improved and liberalized over the years, and as medical care inflation and plan utilization increased, costs skyrocketed. For example, in plan year 1971, the annual premium per employee in the traditional State Health Benefits Plan was $270; in 1981 it was $656, an increase of 143%. By plan year 1984, however, costs are expected to almost double again to $1,217 per employee. If this trend continues, the State and participating local employers will find it difficult to meet their health benefit obligations without cutting other services." [For the period May, 1989-90, the plan cost exclusive of investment income was $2,489 per employee. It is projected to increase to $3,150 for July, 1990-91.]

The balance of this report contains an analysis of three primary areas: design, contributions and utilization. We believe that the proposed changes in these areas have the greatest likelihood of producing significant savings to the State, both on a short and long term basis. Additionally, we believe the recommendations:

- Represent modifications that can be easily monitored to allow a continuous evaluation and quantification of their ongoing effectiveness.
- Result in a benefit plan that will continue to allow the State to be competitive in the labor market.
- Frame a revised plan design that will readily accomodate an orientation to quality assurance as the pre-eminent cost containment feature.

Finally, we note with interest that the recommendations contained in the 1984 Pension Study Commission Report, while not implemented, are still valid. When we began the formal problem identification/resolution process that generated the suggested changes, we had not reviewed the 1984 recommendations. A subsequent comparison showed a large degree of commonality. We believe that the independent identification of many of the same recommendations six years removed partially validates the premise that the State Health Benefits Plan design can be far more effectively designed to take advantage of proven cost containment and cost sharing strategies.

Plan Design

The SHBP health plan design has remained essentially unchanged for two decades. While the plan is generous when compared to a cross section of business and industry, its design is incompatible with any reasonable expectation of containing costs by direct or indirect behavior modification. Furthermore, the absolute level of reimbursement afforded the covered individuals is one of the higher found either regionally or nationally.

The typical contemporary plan design contains elements of cost sharing and cost control that are intended to achieve multiple objectives:

- educate employees to become wiser consumers of medical care by creating a financial awareness of the true resource cost
- create a vehicle that regularly revises the cost sharing components of the plan design, e.g., the deductible and co-insurance amounts, to balance the desire to provide comprehensive coverage with the fiscal reality of the need to share health care expenses with the recipients to a degree that does not unduly strain a family budget
- assure that the health care delivery system's finite resources are utilized in the most effective and efficient manner.

We have focused our review and recommendations on areas of the existing plan design that we have concluded no longer produce the previously expected degree of cost containment. Concurrently, we have attempted to recognize that the State and municipalities operate in a competitive labor market and that health plan design is a critical and highly visible component of total compensation.

RESULTS OF REVIEW

Medical

- The SHBP Medical Plan costs are approximately at the level being experienced by other large plan sponsors. Costs have increased at an annual rate of 16.1% between and 1987 and 1989 with the 1989 cost per employee at $2,550. Comparable industry results reflected an annual trend of 17.5% and a 1989 cost of approximately $2,750 per employee.[13]
- The number of individuals utilizing the Major Medical plan and receiving a benefit is increasing at a 7.5% rate annually.
- The benefit paid under the Major Medical plan increased by $129 per capita between 1987-88 and $204 per capita between 1988-89. These results are after the application of the deductible, co-insurance and Co-ordination of Benefits provisions. The results reflect annual increases of 21% and 27.5% respectively.
- The current alcoholism treatment benefit design strongly encourages an individual to seek all care in an inpatient setting. It does so by reimbursing at 100% for all facility and professional charges. It is therefore not surprising to find that alcoholism dependence has been the number one identifiable substance abuse diagnosis for hospital admissions in each of the past three years. Over 40% of all psych and substance abuse admissions are for this single diagnosis and it represents over 56% of all psych and substance abuse bed days for the past three years. This issue is addressed in more detail in the Utilization section.

- The medical deductible is generous when compared to employer plans regionally and nationally. Various surveys show the percentage of employers retaining a $100 deductible has decreased by 1/3 over the past four years. Only 40% of employers continue to maintain a $100 deductible.[11]
- The medical plan out-of-pocket limit of $400 per person is generous when compared to employer plans regionally and nationally. Over two-thirds of all plans contain on out-of-pocket limit of $1,000 or more per person.[13]
- The continuation of the fixed dollar deductible and out-of-pocket limit creates a leveraging effect against the Major Medical plan that alone has increased costs by $3.5 million in each of the last two years.
- The 80% benefit for outpatient psych care is very generous outside of the context of a managed care plan.

Prescription Drugs

- The current plan provides for a maximum 34 day supply to be obtained at a local pharmacy (except for certain maintenance medications). The current trend is toward a lower limit, typically 20-30 days for most prescriptions.
- Generic drug usage as a percent of total prescriptions filled in the plan has been a relatively constant 21% over the past three years. Blue Cross/Blue Shield estimates another 25% of all prescriptions could have been filled by generics. However, the current plan design contains a minimal financial incentive for the use of generics.
- The per prescription co-pay of $3.50 is generous compared both to all employers with such plans as well as other public employee groups serviced by Medco.
- The current program eligibility includes all active State employees, even those enrolled in an HMO with its own Rx drug plan. This appears to be unnecessary coverage.
- In addition to the Rx drug card plan, drugs are also eligible under the Major Medical plan.

RECOMMENDATIONS

Medical

- Terminate the first dollar surgical-medical benefit and consider all such expenses eligible under the Major Medical subject to a deductible and co-insurance.
- Increase the deductible to $200 per person. Change the family deductible exposure to 2X the individual deductible.
- Increase the amount at which the plan begins to reimburse at 100% from $2,000 of eligible charges to $10,000.
- Include a separate $50 Rx drug deductible per person in the Major Medical Plan.

Rx Drugs

- Increase the Rx drug co-payment to at least $5 excluding mail order prescriptions and generics.
- Change the current voluntary generic differential co-pay to mandatory. One approach would be to increase the co-pays to $10 for any drug prescribed with a brand name when a generic is available; $5 otherwise. In order to effectively administer this change, all participating pharmacies would need to work from the same formulary.
- Limit plan eligibility to non-HMO members.

Contributions

As the absolute costs of providing health benefits increased dramatically during the 1980s, a growing number of employers examined their operational expenses and found that the health care plan was the fastest growing segment of their variable costs. As a practical matter, many employers who historically required little or no cost sharing by the plan participants embraced the belief that a change in this philosophy would produce two desirable effects. The first was that expanded contributions would create dollar-for-dollar relief to apply to other line item budgetary expenses. The second was that when the participant had a larger financial stake in the cost of the plan, he would become a more efficient purchaser thus limiting future cost increases.

Cost sharing in the form of contributions, while administratively easy to implement, does not represent a solution to the root cause of the problem of escalating health care costs. However, with the cost of health benefits representing 33% to 40% of the cost of all fringe benefits, the majority of employers in all industries and all regions of the country sought relief by instituting a contribution requirement where none existed previously, expanded the scope of who was required to contribute and increased the amounts of contributions already being required.

Recent surveys show that in 1989, between 45-50% of employers required employees to contribute for their own coverage and 73-75% required contributions for dependent coverage. This is in contrast to 1985, when 39-41% of employers required employee contributions and 65-70% required contributions for dependents.[11,12,13]

A contribution requirement is utilized to accomplish more than to simply shift part of the plan cost to the participants. With the significant number of working couples today, the likelihood of each being eligible for a benefit plan is greater than ever. When two plans cover one family, the plans typically provide a combined reimbursement level of 100% of actual expenses. This occurs by application of the Coordination of Benefits (COB) provision, a standard in virtually all group plans that both limits the reimbursement to 100% and determines the order of payment.

Dual coverage minimizes at best the impact of cost control features of a well designed benefit plan since there is no financial incentive for the covered individual to be a discriminating health care consumer. Many employers have taken the position that the contribution should be set at an amount that an employee in a potential dual coverage situation will likely choose not to pay.

With the growth and acceptance of HMOs and the PPO as coverage options, the methodology for determining contributions takes on added importance. When only one plan of benefits is available to an employee and a contribution is required, the employee chooses to participate or not. However, when a choice of coverage is offered, e.g., the SHBP, the PPO and the HMOs, the total risk the employee population represents will become segmented. In other words, the risk the total population represents is reduced into smaller pools without benefit of cross application of the total group's premium to the total group's claims.

When this occurs, it is not unusual to find a significant concentration of younger employees enrolling in the managed care options. Foster Higgins' **1990 State and Local HMO Renewal Analysis** documented that of the combined State and Local HMO enrollment, the age groups with the highest HMO enrollment are under 40, ranging from 47.4% in the under age 20 category to 34.2% in the 35-39 bracket.

These population subsets tend to reflect a better than average risk. Differentiating contribution amounts between a traditional plan and HMOs thus becomes critical from a strategic perspective for two reasons. The first is to establish and maintain the appropriate differential between the relative values of the plans; the second is to ensure that specific plan enrollment is not improperly encouraged at the expense of another plan option.

RESULTS OF REVIEW

- Over 175,000 New Jersey State and Local active employees have free coverage. Over 120,000 of these employees receive free dependent coverage.
- Over 4,600 New Jersey State and Local active employees contribute 25% or less to the cost of dependent coverage. The 25% level equates to monthly contributions between $14 and $46.
- When contributions are required of State and Local employees for dependent coverage, they are typically increased each year to the same extent the total plan costs increase.
- When the suggestion to require contributions for dependent coverage is initially proposed, a typical concern is whether or not the financial liability will be so great as to prevent an individual from covering his/her family. The enrollment data we reviewed indicates that virtually all Local employees who must contribute for dependent coverage choose to do so. This group is comprised of far fewer bodies than the number of State and Local employees who qualify for free dependent coverage. Even with the disparity in population size, we believe the results are indicative of the fact that all who have a single source of group medical coverage (i.e., the SHBP) find a way to budget for the costs and will not be left without protection.
- There was a distinct movement by employers during the 1980's to require contributions for both employee and dependent coverage. In 1985, over 60% of employers paid the cost of employee coverage in full. In 1989, only 50% did so. Likewise, 65% of employers required contributions for dependent coverage in 1985. In 1989, 75% required some contribution.[11,13]

RECOMMENDATIONS

- Implement a contribution requirement of 10% for employee coverage and 30% for dependent coverage.
- Re-evaluate the methodology currently used to determine HMO contributions. Incorporating an approach that reflects the impact of risk segmentation by the HMO's on the risk characteristics of the remaining group should produce a more equitable determination of contributions for all participants.
- Introduce a Flexible Benefit Program structured according to Section 125 of the Internal Revenue Code. Limit the scope of the Program to allow employees to use pre-tax income to fund required contributions. Make participation mandatory. Assuming an average salary of $35,000 and a marginal tax rate of 25% (FWT, Social Security and NJIT), the benefit of using this approach is that each $1 of revenue generated from employee contributions is the equivalent of a $.75 reduction to the employee's takehome. Absent this approach, each $1 of contribution revenue costs the employee $1 of after tax income.

Utilization

The past decade has produced an increasing number of studies testifying to the magnitude of "waste" in the medical delivery system. Examples include physicians doing too much and, even worse, performing procedures that are inappropriate or ineffective relative to the particular complaint they are treating. Over-utilization of services is commonplace in the hospital setting leading to poor quality care and contributing directly to rising medical expenses. While a "pure" approach to ensuring the appropriateness and efficacy of each aspect in the continuum of a course of treatment can be acheived only in a managed care product, many employers have incorporated active and passive utilization controls in their traditional plan designs in an attempt to impact rising costs.

Active utilization controls may be defined as those aspects of plan design that require a positive action on the part of either the covered individual or provider to guarantee receipt of the plan's basic level of benefits. By not initiating the action, the covered individual may receive a lesser benefit or no benefit at all. The positive action required is typically a telephone call to a utilization review unit. The resultant effect is an external validation of the efficacy of the proposed treatment. The validation criteria used are documented in scientific literature.

Active controls take the form of hospital utilization review programs designed to require precertification of both the need and length of stay, ambulatory services pre-certification programs, second surgical opinion programs and catastrophic case management programs. Some form of an active utilization program exists in almost 75% of all plans, up from 35% in the mid-1980s.[11,13]

The integration of a utilization review program with a traditional plan design is in itself no panacea. While it is relatively easy to document that high quality care is optimally efficient, the critical elements that distinguish the effective UR programs are the education, professional training and experience of the staff, how they are perceived by the medical community with whom they interact and the underlying structure and processes that create the framework within which the UR effort is discharged.

Recent publications have contained articles questioning the effectiveness of outpatient surgery incentives and second surgical opinion programs. Hewitt Associates conducted a survey in late 1989 and found 36% of employers believed outpatient incentive programs did not save money while 42% believed that they saved as much as 3% of claims. These types of programs were first introduced in the late 1970's and they were demonstrably effective upon inception. However, their effectiveness went beyond results that could be quantified; these programs also created a sentinel effect. Providers proposed procedures of questionable effectiveness less frequently because they knew the likelihood of reimbursement was diminishing. While the sentinel effect continues to exist in today's medical delivery system, we also believe that the medical community practices a "questionable procedure shift" against plans such as the SHBP that do not contain any type of utilization review. Information in the Results of Review section that follows seems to support this hypothesis.

Passive controls more accurately fall into the category of plan design modification, e.g., higher deductibles, increased out-of-pocket liability, lower co-insurance factors, etc. While a correlation between increasing the cost sharing aspects of a plan's design and a decrease in the utilization of discretionary services can be quantified, it is tenuous at best to extend this logic to assume that the care being rendered is effective and efficient.[16]

The challenge facing the SHBP in controlling utilization is how to measurably impact the aggregate cost of the program by changing design elements while maintaining the basic freedom-of-choice, fee-for-service orientation of the program. Of the numerous areas to review, we refined our focus to those aspects that are most highly leveraged, i.e., where the biggest potential payback exists. Absent the ability to literally "manage" the care being delivered, one needs to identify the areas of the current plan design that are generally recognized to be the areas of greatest potential overutilization. In plan designs such as the traditional program, these areas include:

- Psychiatric and substance abuse treatment. The average per diem cost for hospitalizations nationally has increased 50% between 1987 and 1989. Concurrently, employers have seen the dollar allocation for all psych and substance abuse services increase from 10-15% of plan costs in 1985 to upwards of 30% in 1989.[10] There are many reasons for this cost spiral including (i) substance abuse is recognized as a growing problem among the workforce and many employers believe it is worthwhile to spend the money to rehabilitate, (ii) benefit plans have historically contained a perverse incentive to render treatment in an inpatient setting, and (iii) a slow rate of acceptance research that supported alternative treatment plans.
- Specific elective surgical procedures that have a high non-confirmation rate when a second opinion is obtained including umbilical hernia repair, prostatectomies, disc/spine procedures, joint surgeries of the knee and foot, hysterectomies and tonsillectomies/adenoidectomies.
- Caesarean deliveries reimbursed without question. This procedure was performed in 24.7% of all American births in 1988 (the last year for which complete figures are available) making it the most frequent major surgical procedure for women of childbearing age.[14,15]
- Catastrophic case management, where the potential payback can generate an average of $50 of benefits saved for each $1 expended for CCM activities, while the outcome for the patient is at least as good, if not better, than an unmanaged course of treatment.
- Specific diagnostic tests and procedures, e.g., echocardiagrams, MRI's, chest Xrays, sigmoidoscopies, colonoscopies, etc., where externally validated published standards currently exist but are rarely followed.

The insurance and managed care industries along with employers are not alone in their concern and actions to impact utilization. HCFA has created a list of procedures for review in FY 1990, geared to Medicare Part B enrollees, that they deem worthy of close, continuous review for possible overutilization. While many of the tests and procedures listed above are of mutual concern, it is interesting to note that HCFA has also included six different categories of physician office visits and two categories of hospital consultations they consider as potential major areas of offense.

RESULTS OF REVIEW

- Over 52,000 electrocardiagrams were performed in 1989, approximately evenly distributed between being done in a hospital and a physician's office.

- Out of 18,506 claims identified as physician consultation in a hospital, over 13,700 were billed as "comprehensive". The definition of comprehensive includes an in depth patient evaluation requiring the development and documentation of complete medical data, establishing (or verifying) a plan for management of the patient and the preparation of a written report. This is one of the target consultations included on the previously referenced HCFA list.

- There are 17 general hospital admission diagnosis categories that are indicators of potential catastrophic cases including AIDS, burns, head injury/coma and neonatal/pediatric complications. Expense for a total course of care can readily exceed $50,000 and it is not unusual to for the total expenses to exceed $100,000. The 1987-1989 Blue Cross admission statistics for the SHBP showed an increasing incidence of these occurrences. While our view was limited only to hospital expenses, we believe that the data are indicative of catastrophic cases that would benefit from active, continuous management.

Qualifying Diagnoses

	One Year Hospital Expenses of $50,000 or more	One Year Hospital Expenses of $25,000 - $50,000
1989	41	129
1988	35	114
1987	22	72

We note that a voluntary Catastrophic Case Management referral service was implemented in 1990 for State and Local employees. The CCM service is activated only upon employee request. Through August, the service has received 3 referrals.

- Of the 511,000 diagnostic tests and procedures paid for by the SHBP in 1989, eight of the nine most frequent match the target list of questionable need released by HCFA. These eight procedures alone accounted for 33% (166,900) of all tests and non-surgical diagnostic procedures performed on all SHBP participants. The corresponding Blue Shield claim dollars exceeded $2,274,000 or 24% of all expenditures for tests. The additional expenses paid under the Prudential Major Medical plan could not be quantified.

- Alcohol dependence has been the most frequent diagnosis for all psych and substance abuse admissions since 1987. Drug dependence has been the third most frequent since 1987. Together, these two diagnoses comprise 51% of all psych and substance abuse hospitalization dollars spent in the past three years ($17,737,200 out of $34,778,900) and 62.8% of psych and substance abuse hospital days (87,126 out of 138,571).

- The average length of stay for alcoholism dependence has decreased from 20 to 15 days between 1987-1989. Drug dependence stays have decreased from 13 to 11 days. Concurrently, the average hospital benefit paid for alcoholism has increased from $3,500 to $4,100 and from $3,300 to $3,900 for drug dependence. On a per diem basis, the cost to treat alcoholism in a hospital has risen 56% in three years. Drug dependence costs have risen 40%

RECOMMENDATIONS

- Implement a mandatory pre-certification and concurrent review program for all proposed medical-surgical hospitalizations. The design must include a non-compliance penalty.
- Implement a psych and substance abuse pre-certification and concurrent review program. The scope should encompass all treatment, i.e., inpatient, partial hospitalization, and ambulatory care. The design must include a penalty for non-compliance in order to create the proper incentive. Voluntary programs are proven to be ineffective and inefficient. Concurrently, the plan must be redesigned to remove the current incentives for receiving care in an inpatient facility.
- Institute a mandatory second surgical opinion program designed to focus on a small, select list of procedures with the highest potential for abuse. A non-compliance penalty is a basic requirement.
- Institute a formal process that identifies potential catastrophic cases as close to the time of the initial admission as possible and communicates this information to the Catastrophic Case Management team. Allow the unit to initiate activity without the specific request currently required from the employee.
- Formally pursue the design and implementation of a process to monitor (and possibly authorize) the performance of a select list of diagnostic tests and procedures that have been demonstrated as having the potential for abuse.

Other

There are other factors we believe need to be recognized and considered when attempting to refine a strategic plan that the design and administration of the State Health Benefit Plan will support.

Examples of these include:

- The growing impact of the HMO option should be continuously evaluated in the context of how the HMOs compliment the State's benefit strategy. One criterion might be that each HMO available to State and Local employees offer a plan of benefits that is "comprehensive" as defined by the Department of Pensions. Comprehensive could be equated to some combination of scope and level of benefits. This approach will protect the SHBP from HMOs that implement substantive, arbitrary benefit reductions from year to year in an attempt to make themselves an unattractive option to employees with specific medical problems.
- A three-year review of in-state hospitals that received the greatest amount of benefits paid on behalf of the SHBP shows a remarkable consistency of recipients. Between 21-22% of all Blue Cross benefits paid in each of the last three years have been directed to virtually the same ten institutions. The equivalent dollar amounts are $31.5 million in 1987, $35.2 million in 1988 and $41.6 million in 1989. With this volume of business being concentrated among a relatively few suppliers, it would be worthwhile to explore what type of preferred financial arrangements may be negotiated that are not in conflict with the regulated component of hospital revenue.
- There are 17 HMOs currently offered to State and Local employees. The smallest number of HMOs available in any county is 4. There are seven or more HMOs to choose from in 19 of the 21 counties. There are ten or more HMOs to choose from in 12 of the 21 counties. In 1989, one HMO enrolled seven State and Local employees; the next smallest enrollment was 159 employees. We believe the State would be well served to evaluate its policy that determines the number of HMOs offered to State and Local employees. There are hard and soft dollar expenses associated with maintaining HMOs with marginal enrollments or offering HMOs whose costs, benefit design, scope of physician network and general quality are very similar.

In 1984, the New Jersey State Pension Study Commission's collective recommendations represented the then contemporary approach to cost containment that was attainable within the context of a traditional indemnity plan design. Since 1984, product design has evolved to the point that it is now common (and many employers believe desirable) to adopt a medical plan design that incorporates a managed care point of service option. This type of plan incorporates many of the attributes found in the more progressive HMO's including:

- each member selects their own primary care physician
- a formal, written quality assurance program overlaid upon all components of care
- a rigorous and ongoing credentialing and recredentialing program applying to all participating medical professionals
- a customer service unit accessed by an 800 number and available to assist any member with a problem or question
- a cost containment philosophy that is based upon the premise that high quality care is optimally efficient

Concurrently, a managed point of service program allows a member to self-refer to any non-participating provider, receive treatment and be reimbursed under a traditional indemnity

plan design. The concept of offering both a managed and indemnity option in the same package is based upon the premise that over time, more employees will become comfortable with the program and seek more care under the managed component. Benefit differentials need to be in place to incent the member to use the managed network, e.g., 100% coverage with minimal or no co-payments for network benefits vs. a deductible and co-insurance applicable to self-referral benefits. The current PPO option is an example of this type of plan design.

We recommend that the PPO plan be evaluated in the context of totally replacing the existing SHBP indemnity plan.

While the PPO option has the potential to produce a significant long term impact from a cost containment perspective, we also believe that adopting the PPO as the primary SHBP plan will improve the typical covered individual's situation. The majority of the recommendations we've included are changes to the current benefit structure to control excessive costs and utilization. These recommendations are consistent with approaches used in private and public sector plans today. The associated cost savings are realized by a one-time cost shift to the individual. The PPO approach results in a lower absolute cost to the State, and creates the connection between plan change and plan improvement for the employee. The benefits associated with the PPO are:

- a layering of clinical oversight and accountability on the current health care delivery system to ensure appropriate care is available and delivered to State and Local employees and their dependents,
- the economic power of being able to negotiate competitive prices from all sectors of the health care system by virtue of the PPO representing hundreds of thousands of medical consumers, and
- the establishment of an accessible, responsive, experienced outside organization in the de facto role of ombudsman for each State and local covered employee, and
- the creation of the opportunity for each covered individual to receive better benefits than currently available under the SHBP by using the PPO delivery network.

This approach has been successfully implemented with many large employers that have a significant population of employees subject to collective bargaining, AT&T being the most recent and perhaps most notable. One key to a successful implementation is that the point-of-service managed care concept is communicated and perceived as adding value to the health care delivery process. There is no other approach that can assure both the quality and appropriateness of care as well as the credentials of those delivering care while concurrently allowing an individual to self-refer to any legitimate provider based on personal need or preference and still receive a fair reimbursement.

Our final recommendation is to establish a standing commission whose primary function is to continually evaluate the design and delivery and the health care benefits available to State and Local employees. The objective of this group would be to review what exists with the goal of making the benefit configuration and support system more efficient, more effective and more compatible with the needs of both the State and its employees. Our exposure to many State employees during the process of creating this report convinces us that the necessary talent to successfully support this task exists.

HEALTH PLAN CHANGE RECOMMENDATION SUMMARY

	Category	Current	Preferred	Alternate
Funding	• Contributions Required of Participants	None - State Employees and Dependents (Active) Varying - Local Employees and Dependents (Active)	10% employee, 30% dependent (All)	Same as Preferred
	• Vehicle	After tax basis, where applicable, to Local and Retired employees and dependents	Implement Flexible Benefit Plan to allow pre-tax deductions for all Actives	Require contributions on an after tax basis
Hospital	• Implement mandatory precertification and concurrent review program for medical-surgical admissions	N/A	50% non-compliance penalty	Same as Preferred
	• Catastrophic Case Management	Voluntary; Employee must initiate request	Revise process to eliminate need for employee to initiate request	Same as Preferred
Major Medical	• Increase deductible	$100/ind., $200/family	$200/ind., $400/family	$150/ind., $300/family
	• Increase out-of-pocket maximum	$400/yr	$2,000/yr	$1,000/yr
	• Scheduled benefits for surgical and medical	Applicable	Eliminate	Same as Preferred
	• Implement mandatory second surgical opinion program	N/A	30% non-compliance penalty	Same as Preferred
	• Implement separate annual Rx drug deductible	N/A	$50/yr	Same as Preferred
Prescription Drugs	• Increase co-pays	$3.50 per Rx ($1.00 mail order)	$10 for substitutable drugs; $5 otherwise	$5 excluding generic and mail order
	• Limit initial quantity	34 day supply	20-30 day supply	Same as Preferred
	• Eligibility	All active State employees	Limit to employees not enrolled in HMOs	Same as Preferred
Other	• Implement mandatory psych and substance abuse precertification and concurrent review program to apply to all inpatient and ambulatory services	N/A	Redesign current benefits and incorporate a non-compliance penalty	Maintain current benefit levels and incorporate a non-compliance penalty

Pension and Retirement Plan Overview

The following review is intended to identify areas of potential cost reductions with particular attention to identifying plan practices and provisions which may differ from those found in the plans of competing private sector employers. No attempt has been made to consider existing legislative requirements or terms of current labor contracts.

In a number of areas, sample actuarial calculations are provided. The calculations are solely intended to clarify certain observations. They do not represent an actuarial opinion nor are they necessarily representative of the cost of specific features in the New Jersey plans. A formal actuarial valuation (considering actual population distribution, withdrawal and disability rates, employee contributions, etc.) would be required to quantify the value of any actual changes. Such analysis was beyond the scope of this review.

The review has been primarily confined to the PERS and Teachers Plan which constitute the bulk of the state liabilities.

The Pension and Retirement Systems include a multitude of areas that would appear to benefit from revisions to current design framework and supporting administrative and professional services. These areas may be categorized as:

- Plan Features - Those aspects of a plan that include attainment of eligibility defined by age as well as eligibility for "special" benefits and provisions associated with loans to participants.
- Plan Design - The basic structure of the vehicle providing the benefits. The typical choice is between a defined benefit and a defined contribution plan.
- Plan Administration - Who does it and how cost effective are the results.
- Investments - An examination of the techniques, asset mix, yield and fund management.

Plan Features

NORMAL RETIREMENT AGE

The Normal Retirement Age (NRA) in most private plans is age 65. The state plans have a NRA of 60 [1] The difference in cost to provide these benefits can be substantial. In the example below [2], the present value at age 30 of a benefit commencing at age 60 NRA is **65.6%** higher than the same benefit starting at age 65. 13% represents the fact that payments will begin five years sooner and hence there will be more years of payments and COLA adjustments. The balance primarily represents the five years less of assumed interest earnings.

	-Cost of $1 per year @ assumed-ret. age	**entry age (30)**	**additional cost @ entry vs NRA of age 65**
50	$16 22	$4.11	302.3%
51	16.00	3.78	270.0%
52	15 77	3.47	240 1%
53	15 53	3.19	212.2%
54	15.28	2.92	186.3%
55	15 02	2.68	162.2%
56	14.76	2.45	139.9%
57	14.48	2.24	119.2%
58	14.20	2.04	99.9%
59	13.91	1.86	82.1%
60	13.62	1.69	65.6%
61	13.31	1.53	50.3%
62	13.00	1.39	36.2%
63	12.69	1.26	23.1%
64	12.37	1.13	11.1%
65	12.05	1.02	0.0%

ERISA presumes a NRA of 65 for private plans. More recently, the "normal retirement date" under social security has been raised from 65 to as high as 67 for some participants.

EARLY RETIREMENT

N.J. allows early retirement with 25 years of service. At age 55 or older, there is no reduction in benefit.

A Hewitt survey [3] of 774 leading employers with Defined Benefit plans indicates that the earliest age for unreduced benefits with **30 years** of service is 60 or higher in 93% of the companies.

* References are shown at the end of the report.

A Wyatt survey [4] of 50 leading companies shows that, on average, the companies pay only 71% of accrued benefit to employees retiring at age 55 with 25 years of service (this increases to 78% for age 55 with 30 years and 95% for age 60 with 30 years).

For early retirement prior to age 55, benefits are reduced 3% for each year under age 55 that benefits commence. This is considerably less than the actuarial reduction factors, as shown below:

Age	Present Value @ age 50 of $1/yr commencing at	-Actuarial Reduction Factors- -vs Retirement Age of- 55	60	65	State Plan Reduction Factors
50	$16.22	35%	59%	75%	15%
51	14.92	29%	55%	73%	12%
52	13.71	23%	51%	71%	9%
53	12.59	16%	47%	68%	6%
54	11.54	8%	42%	65%	3%
55	10.57		37%	62%	0%
56	9.67		31%	58%	0%
57	8.84		24%	54%	0%
58	8.06		17%	50%	0%
59	7.34		9%	45%	0%
60	6.68			40%	0%
61	6.06			33%	0%
62	5.49			27%	0%
63	4.96			19%	0%
64	4.48			10%	0%
65	4.03				

The actuarial reduction factor is the amount a benefit should be reduced to be economically equivalent to a later benefit. For example the cost of a $100/year benefit starting at age 55 for someone now age 50 would be $1057.33. That same amount would only purchase a benefit of $65.19 if payments began at age 50. Thus the actuarial reduction factor would be 35%. The state plan would use a reduction of 15%. As shown above, the reduction is steeper if measured against a higher Retirement Age.

DEFINITION OF SALARY

New Jersey uses a "three highest consecutive years" definition of final salary to determine pension benefits. Only 15% of the companies in the Hewitt survey use this definition; the balance are more restrictive with five years being most common (66%). As shown below, with a 4% annual salary increase, this would increase starting benefits almost 4%. Among Public plans, only 15% use a final three years definition, with 15% using final year or final two [5].

1	$1,000.00	Average of final 3 =	$1,125
2	1,040.00		
3	1,081.60	Average of final 5 =	$1,083
4	1,124.86		
5	1,169.86	Difference =	3.9%

COST OF LIVING ADJUSTMENTS

N.J. has an automatic COLA equal to 60% of the CPI. This benefit is now being advance funded. Only 5% of surveyed private employers had automatic COLAs. However, many of the

remainder make use of "ad hoc" adjustments. Hence, it is difficult to determine whether the state COLA is "liberal" or not.

VETERAN'S ADJUSTMENTS

The state plans have special benefits applicable to veterans (as defined.) In the latest PERS actuarial report, the normal cost for veterans was 0.21% higher than for non-veterans (0.17% - 0.27% for local governments.) Private plans do not provide such benefits. In fact, the practice would not be permitted under ERISA.

COORDINATION OF BENEFITS WITH SOCIAL SECURITY

88% of surveyed companies use integration (coordination of plan benefits with those payable from social security.) Under integrated plans, benefits based on compensation below a given point are lower than those based on higher amounts of compensation. This is permitted under the Internal Revenue Code to reflect the fact that the employer "provides" for a portion of the social security benefit based on the employer share of FICA taxes and recognizes that social security provides greater benefits, as a percentage of salary, at lower income levels than at higher levels. The main rationale for integration is to lower the employer's cost for pensions. It also allows the employer to develop a "target" retirement income goal reflecting both pension and social security benefits.

New Jersey reduces the required employee contributions by 2% on earnings below the FICA limit. In essence, this increases the employer's cost and represents a form of "reverse integration."

LOANS

The plans permit loans to participants at a 4% interest rate. The effect of this provision is to reduce plan income by the difference between the market rate of return and 4%. This reduction results in increased employer contributions. Department of Labor regulations require that plan loans to participants of ERISA plans, even when secured with their account balances, reflect a market rate of interest.

LIFE INSURANCE

The contributory life insurance benefit makes no distinction in premium on account of age. Thus, younger employees will be able to purchase insurance at lower rates outside of the plan, while older employees and those in poor health will find the coverage to be a bargain. The anti-selection inherent in this arrangement is likely to lead to losses on the voluntary coverage (the present carrier should be able to determine the plans most recent experience). Any losses will be borne by the plan.

Private companies typically have separate plans for life insurance rather than including them in the pension plan.

The plans provide a survivor's benefit (annuity) for accidental death on the job. Private employers more typically provide a lump sum (flat or multiple of salary) and do not differentiate between on-the-job and off. Again, this is normally separate from the pension plan.

DISABILITY

Only 15% of surveyed employers provide a disability benefit beginning at time of disability (with half of these limiting it to the accrued benefit). 17% provide no special disability benefit and 60% provide only the normal retirement benefit starting at the retirement age. The state plan has a minimum of 40% of final compensation (equal to 24 years of service, ie. 24/60 = 40%.) Of course, private companies may have Long Term Disability coverage separate from the pension plan.

HEALTH INSURANCE

New Jersey provides health insurance to retirees, a not uncommon practice. In the latest PERS valuation, the present value of this benefit to active employees is over $1.6 billion. The cost of retiree health coverage tends to be especially high for people under age 65, due primarily to the fact that Medicare is not available. (Benefits for those over 65 are coordinated with Medicare reducing the employer's costs.) The age 60 NRA and the early retirement provisions in the N.J. plan encourage employees to retire during this period, thus increasing health costs. Retiree health costs can be expected to be an increasing proportion of expenditures over time. The situation will be aggravated if medical costs continue to rise faster than general inflation.

BUY INS

The state plans allow participants to "buy in" with additional years of service under the plan in certain circumstances. These would include former membership in a state plan, military service or service with another state.

The employee bears the cost of purchasing credit for military service before enrollment, but the other instances will involve a cost to the employer. While some private plans may allow employees to receive credit for prior service under the plan or military service after employment, they do not allow purchase of credit for time with other employers (note that this concept differs from merely allowing rollovers into a Defined Contribution plan, which has almost no cost to the new employer).

Plan Design

GENERAL CONSIDERATIONS

Pension plans constitute an extremely important employee benefit. However, it is important to recognize that such plans represent merely one portion of the employee's overall compensation package. In particular, the pension plans should be considered in conjunction with salary plans to determine if the combination is meeting the goals of attracting and retaining staff.

In general, certain features and plan designs tend to appeal to different groups. For example, defined contribution (DC) plans tend to be more attractive to younger employees and those with shorter service (including new hires), while defined benefit (DB) plans are more attractive to older, longer service employees.

The state plan is similar to the combination of a defined contribution plan and a defined benefit plan. Employee contributions are required and, under certain circumstances, may be available for withdrawal. However the New Jersey plan clearly is more attractive to longer service employees. No interest is available on contributions for the first three years; thereafter a fixed (currently below market) rate is applicable thereafter. (Private plans are required to credit interest on employee contributions at no less 120% of the federal midterm rate.) Vesting requires ten years of service. Withdrawal of contributions leads to forfeiture of the defined benefit entitlements.

In its role as employer, the State would have more flexibility if it employed separate DB and DC plans. Among major employers offering defined benefit plans, the vast majority (99%) offered at least one separate defined contribution plan. Thus the State is at a disadvantage in competing for new employees in this area.

Please note that providing separate DB and DC plans is not necessarily a cost saving measure. The resultant plans could be designed to cost more, less or the same as a contributory DB plan.

The State retirement plan was studied extensively in 1983-84. A major recommendation of that Commission was the separation of the New Jersey plan into separate DB and DC plans.[6]

The latest redesign of the Federal Employees pension plan split it into separate DC and DB plans.

ADMINISTRATION

Currently, a staff of 400 administers the state plans at a cost of over $20,000,000 per year. This includes the cost of computer programming. An area which could be investigated for savings is the possibility of purchasing existing software and/or contracting work out to professional organizations. This is most likely in situations where the provider can spread the cost of developing computer systems over many clients.

Savings in this area may be limited due to the differences between the state and private plans (for which most software was developed). Any investigation of new plan designs should consider ease of administration.

As examples:

In the area of Defined Contribution recordkeeping, many providers include such services along with their investment products. Should the state decide to separate the DC and DB elements, this is a potential source of savings.

Many banks, insurance companies and data processing firms have the capability of producing monthly checks. Additionally, the state could contract with an insurance company for purchase of retiree liabilities, transferring investment risk along with processing responsibility.

In any event, it is important that any vendor under consideration should have a demonstrated capability to adequately provide such services.

ACTUARIAL

The actuarial funding method being employed is reasonable. The prefunding of COLAs is valuable in the sense of matching contributions to the periods when benefits are accrued. The same holds true for the use of a 401(h) funding of the post-retirement medical insurance costs.

Enhancing investment income is just as effective as reducing expenses or other outflows as a method of controlling employer contributions.

BOOK VALUE ACCOUNTING

Investments are valued at "book" for purposes of determining the limitations on common stock holdings and other purposes.[7] This is not in keeping with modern investment techniques. A share of AT&T held today is worth the same whether it was purchased in 1969 or 1989. Use of book value distorts the purposes of the limitations since selective sales of holdings with embedded gains or losses allows vastly differing holdings to appear to be at the same level of stock exposure. Also, if the plans are at the limits, book value accounting may force managers to base asset sales decisions on capital gain status rather than investment merits.

Use of book value in reporting returns is also flawed. This approach only considers dividend and coupon yields. When purchasing stocks, more overall return is expected from appreciation than dividends. Book returns are not particularly meaningful. "In dealing with the investment portfolio itself, the appropriate objective is what securities analysts call total return, which is the change in value of existing assets (appreciation-depreciation) plus payments of dividends and interest".[9]

The state has recognized these points in its regulation of insurance companies. While insurance company reports to Insurance Department are based on "book value" reporting, "book" for common stock is essentially redefined as market value.

ASSET MIX

As with any "final average" pension plan, liabilities of the N.J. plans are quite sensitive to inflation. The inclusion of an automatic COLA increases this relationship. However, the asset mix of the N.J. plans are limited to 40% (book value) common stock; the balance being invested in fixed income vehicles (bonds, mortgages, money market.) Fixed income investments are weakly, or even negatively, correlated with inflation. Stocks are positively correlated with inflation over longer periods of time. Real estate is also positively correlated with inflation.

At the end of 1989, the asset mix for private trusteed funds was:[8]

EQUITIES 53%
BONDS 26%
CASH ITEMS 12%
OTHER INVESTMENTS 9%

Hence the state appears underweighted in equities. Historically, equities have outperformed fixed income securities over longer periods of time (but are much more volatile in the short run). Based on this, the state may wish to reconsider its limitations on asset mix.

USE OF OUTSIDE MANAGERS

Opinions of the Attorney General's office have indicated that the use of outside managers is not legal under existing law.[6] 93% of public plans employ professional investment managers and consultants.[5] Consideration should be given to enacting appropriate changes. It is likely that outside managers may be useful in managing at least a portion of plan assets for the following reasons:

ECONOMIES OF SCALE: Using outside manager allows the costs of the research and the professionals employed to be spread over a number of clients, allowing the use of expertise that a single plan could not afford to hire on a full time basis.

DIVERSIFICATION: The plan may wish to invest in areas where specific expertise and costs are required (e.g. foreign equities or bonds) but not in a large enough amount to justify hiring full time professionals. Outside management can be a solution. Similarly, the use of outside management might permit investment in real estate, where the cost of developing the appraisal, management, etc. staff might be prohibitive unless done on a commingled basis.

THE STATE MAY HAVE DIFFICULTY matching salaries being paid to investment professionals (whose costs are being spread over multiple clients when working for outside managers). Also, in the event of unsatisfactory performance, it is easier to dismiss an outside manager than an employee.

POSSIBLE ENHANCED RETURNS: Over the period 1984-88 the Common Fund has tended to lag the market[7] as shown below:

	Common Pension Fund A	S&P 500	TIAA/ CREF	Common Fund VS. S&P 500	Common Fund VS. TIAA/CREF
1984	-7.7%	-4.6%	4.9%	-3.1%	-12.6%
1985	27.6%	31.0%	32.9%	-3.4%	-5.3%
1986	38.4%	35.9%	22.0%	2.5%	16.4%
1987	23.8%	25.2%	5.1%	-1.4%	18.7%
1988	-10.2%	-6.9%	17.5%	-3.3%	-27.7%

Outside managers should be expected to beat the standard agreed upon (e.g. the S&P 500 or the Wilshire 5000 or any mutually agreeable target). As a minimum, there are many index managers available who will manage funds to match any index. Index managers have lower fees than active managers. Many will agree to no fee unless they at least match the index. The final test should be that an outside manager should be able to outperform inside management after considering fees.

INVESTMENT TECHNIQUES

Recent years have seen rapid development in the realm of portfolio management. Techniques such as contingent immunization, tactical asset allocation, option theory, asset/liability matching, etc. may be profitably used to maximize portfolio value in relation to liabilities. Such techniques do not seem to be extensively utilized in the state plans.

PENSION PLAN CHANGE RECOMMENDATION SUMMARY

	CURRENT	PROPOSED
FEATURES		
• Normal Retirement	NRA = 60	NRA = 65
• Early Retirement	25 years of service and age 55, no reduction	30 years of service and age 60
• Final Salary Definition	3 year basis	5 year basis
• Coordination with Social Security	Reverse Integration	Positive Integration
• Loans	4% fixed interest	Market rate
• Life Insurance	Contained in Pension Plan and no age adjusted rates	Separate from Plan and use age adjusted rates
• Disability	Minimum 40% beginning at time of disability	Provide normal benefit beginning at normal retirement age. Consider purchase of separate Long Term Disability coverage
• Buy-Ins	Employee may purchase credit for time with other employers	Limit buy-in to time in military service
DESIGN		
• Vehicle	Combined DB and DC plan	Create separate DB and DC plans
ADMINISTRATION		
• Programming	Performed in house	Investigate outside contracting
INVESTMENTS		
• Accounting Basis	Book Value	Market Value
• Asset Mix	Limited to 40% equities	Increase or remove 40% limitation
• Outside Managers	Use prohibited	Enact appropriate change to allow use for at least a portion of plan assets

EXHIBITS

HEALTH PLAN ESTIMATED ANNUAL SAVINGS

SHBP and Rx Drug plan, active only, State and Local employees.

PROJECTED PER CAPITA SHBP COSTS

Reflects SHBP Plan, active and retired, State and Local employees. Excludes HMO's and Rx Drug plan.

ANNUALIZED SHBP AND HMO COST COMPARISON

Based upon November, 1989 enrollment and 1989 rates.

CURRENT SHBP COSTS VS. PROPOSED CONTRIBUTIONS

Five year projection (base year 1989) showing a 10% employee, 30% dependent SHBP contribution requirement. No other plan changes are assumed.

IMPACT OF PROPOSED SHBP PLAN CHANGES

Five year projection (base year 1989) identifying the value of the proposed plan changes and contribution requirements relative to future core plan costs. Rx drug plan recommendations excluded.

PREFERRED HEALTH PLAN RECOMMENDATION

Relationship of the savings to the current total cost (base year 1989) of each major component of the recommendations (Eligibility, Plan Design and Contributions).

PENSION PLAN INTEREST ON LOANS

Comparison of market rate to current plan loan rate by quarter beginning 1-1-88.

NEW JERSEY

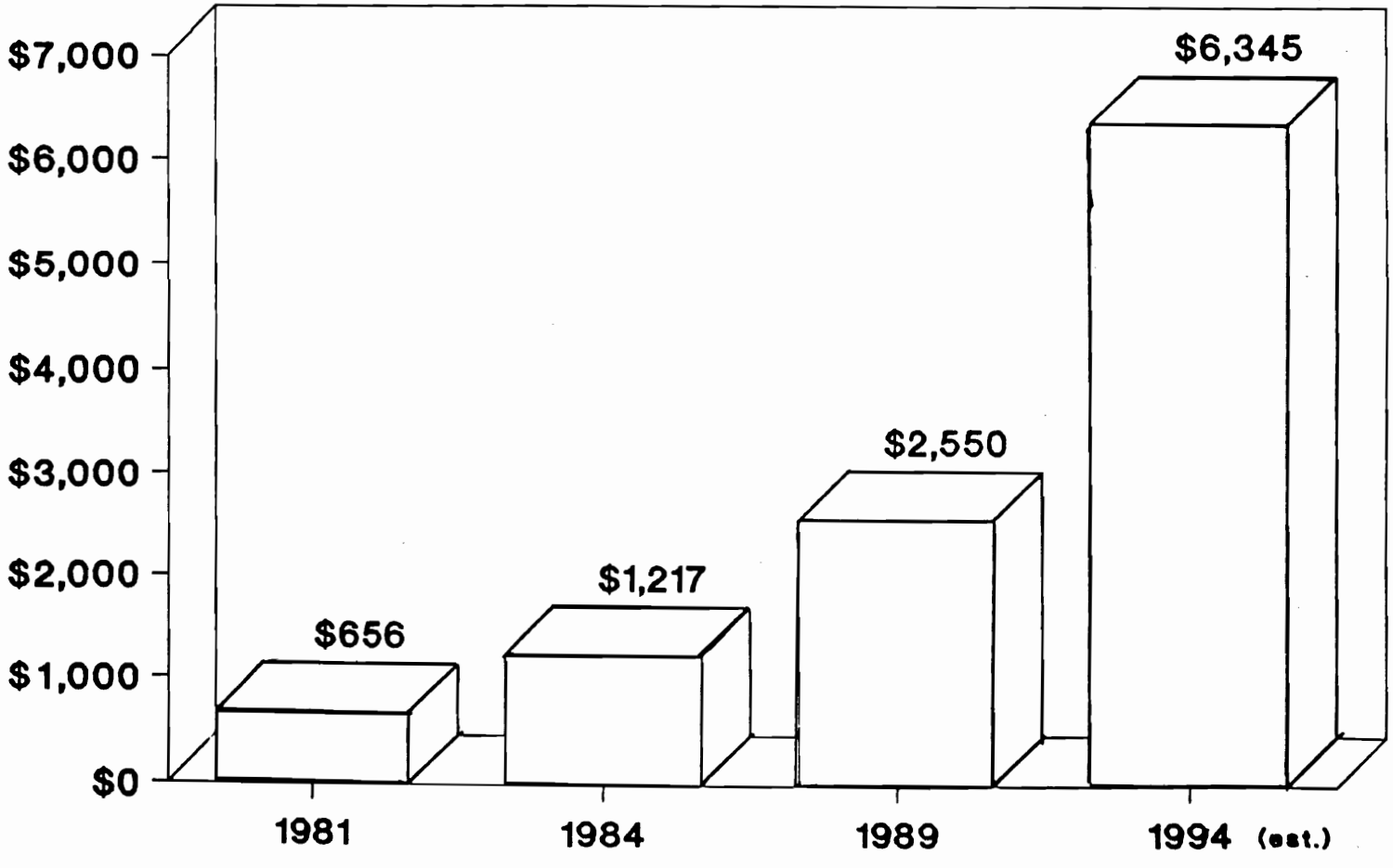
STATE HEALTH BENEFITS PROGRAM

($ Amounts Omit OOO's)

ESTIMATED ANNUAL SAVINGS - MEDICAL AND RX DRUG PLANS

	PREFERRED	ALTERNATE
HOSPITALIZATION		
Mandatory pre-certification medical & surgical	$ 3,555	$ 3,555
MAJOR MEDICAL		
Terminate scheduled benefits	7,708	7,708
$150 deductible	-	7,398
$200 deductible	14,180	-
Increase co-insurance to $5,000	-	9,659
Increase co-insurance to $10,000	13,974	-
Mandatory second surgical opinion	4,110	4,110
Separate $50 Rx drug deductible	8,015	8,015
PRESCRIPTION DRUGS		
$5 co-pay	1,449	1,449
Remove HMO participants from eligibility	15,314	15,314
OTHER		
Mandatory psych and substance abuse pre-certification and concurrent review	6,738	1,356
SUBTOTAL - ELIGIBILITY CHANGE (Rx)	15,314	15,314
SUBTOTAL - PLAN CHANGES	59,729	43,250
SUBTOTAL - CONTRIBUTIONS	86,746	89,890
TOTAL SAVINGS	$161,789	$148,454

New Jersey
State Health Benefits Program



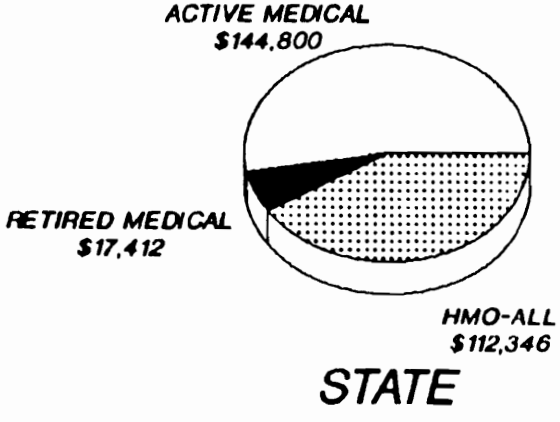
Projected Per Capita Cost - No Plan Changes Implemented

NEW JERSEY

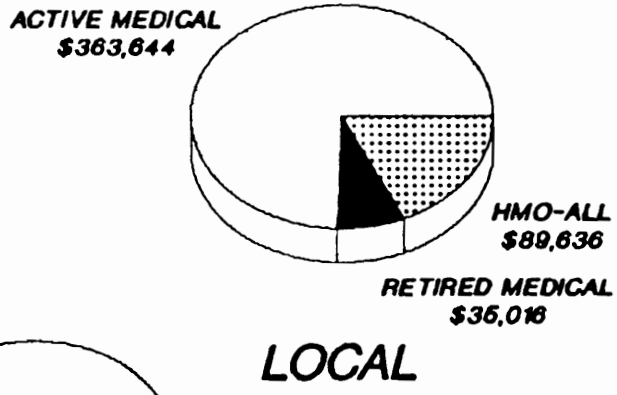
State Health Benefits Program

Medical - Annualized Cost Basis

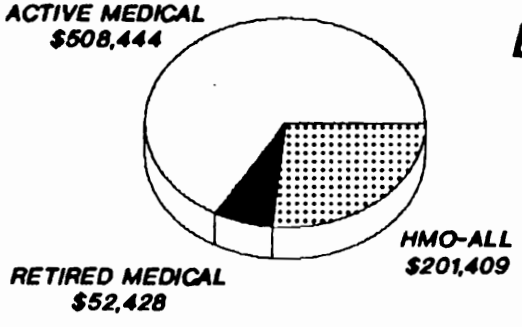
	State	Local	Total
Active Medical	$144,800	$363,644	$508,444
Retired Medical	$ 17,412	$ 35,016	$ 52,428
HMO - ALL	$112,346	$ 89,063	$201,409



STATE



LOCAL



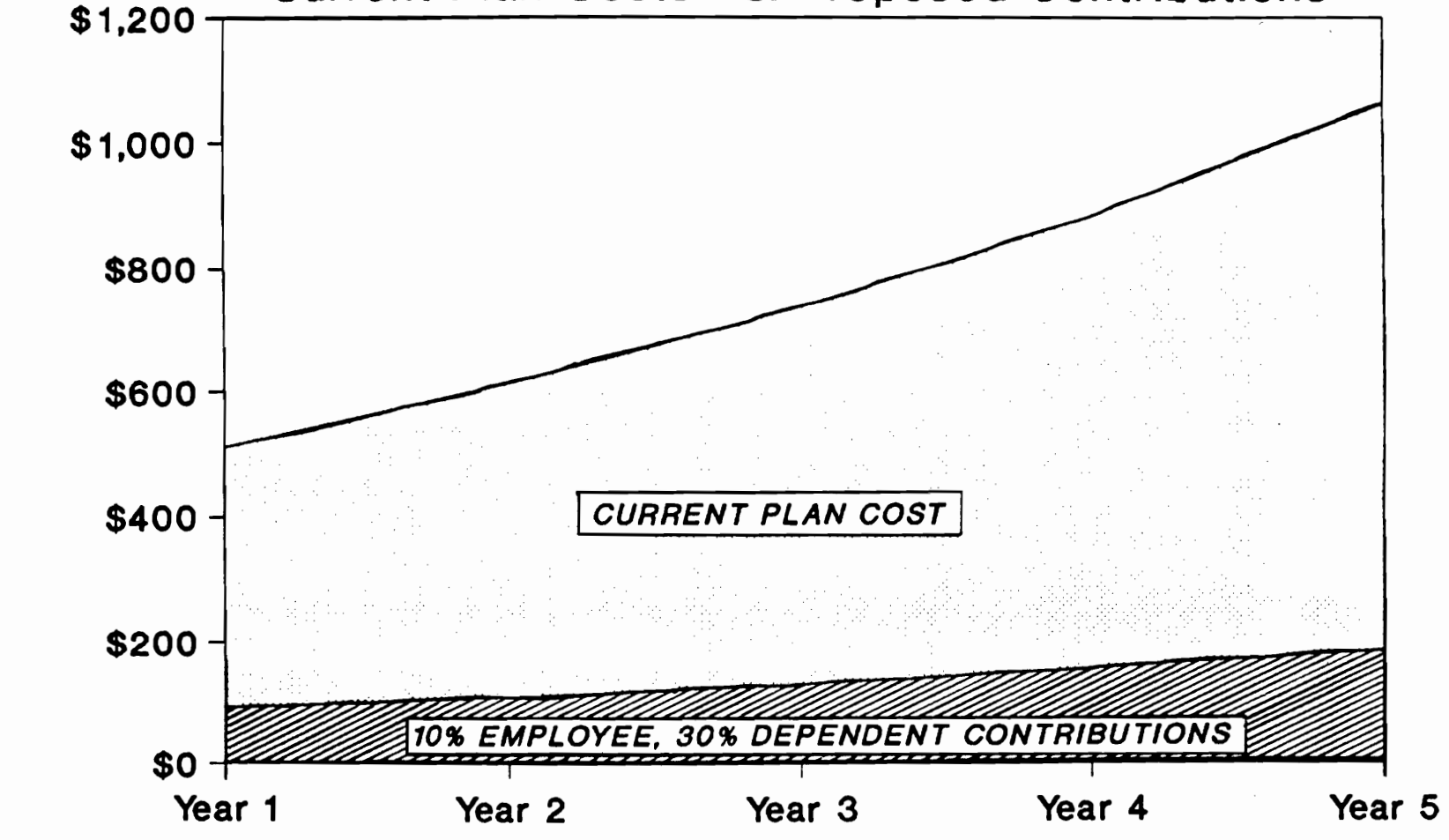
TOTAL

Excludes required current employee and dependent contributions

NEW JERSEY

State Health Benefit Program

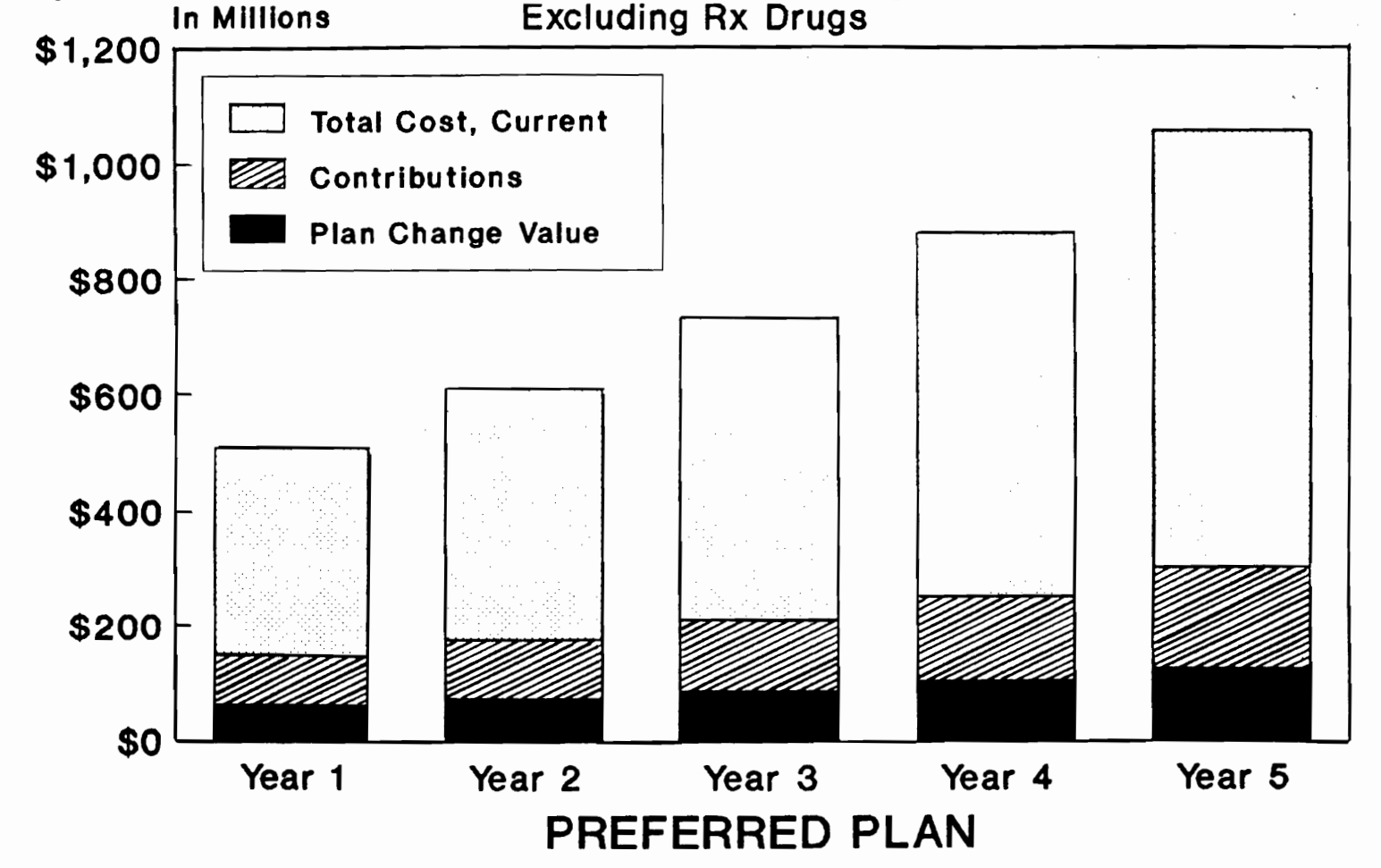
Current Plan Costs Vs. Proposed Contributions



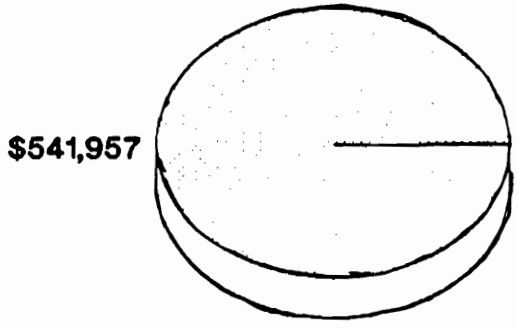
NEW JERSEY

State Health Benefits Program

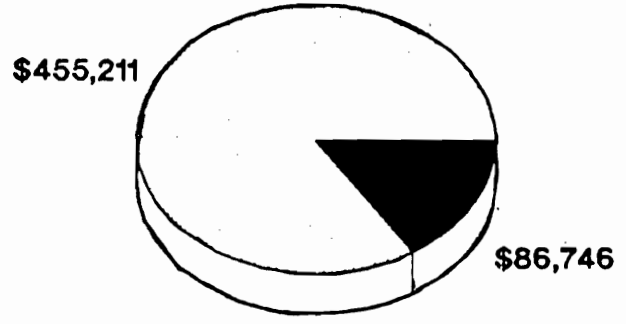
Impact of Proposed Medical Plan Changes on Current Costs



New Jersey State Health Benefits Program

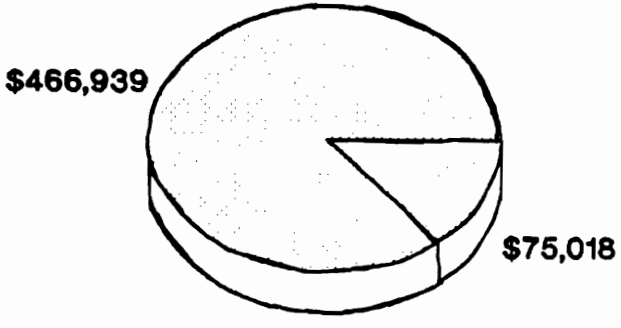


Current Cost

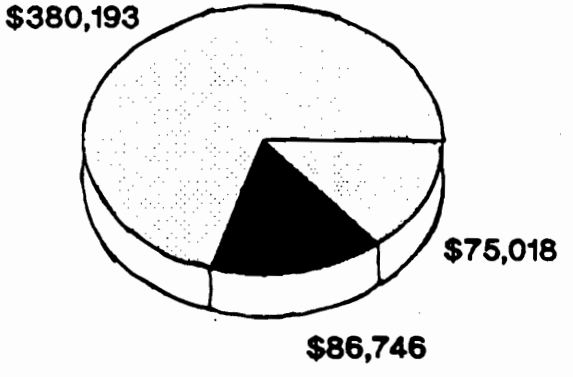


Effect of Proposed Contributions

Impact of Preferred Plan Recommendations
Traditional SHBP and Rx Drugs Only



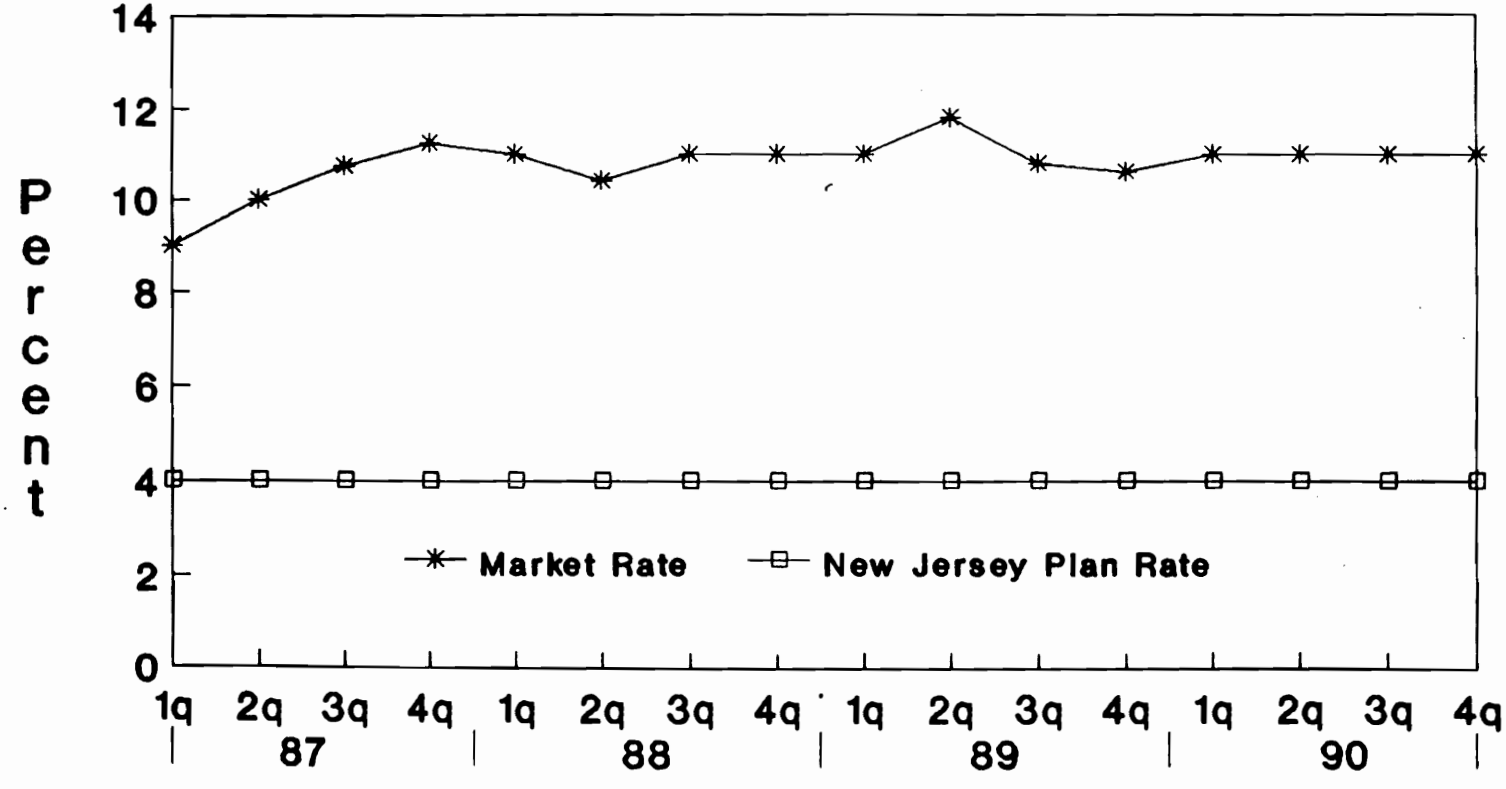
Effect of Proposed Eligibility & Plan Changes



Effect of All Proposed Changes

(000's Omitted)

Interest Rate Comparison
Market Rate vs. New Jersey Pension Plan Rate



Market Rate = Prudential Defined Contribution Product Rate

REFERENCES

(1) Plan provisions based on state actuarial reports and N.J. Division of Pensions publications P-30-217-986 (Public Retirement in New Jersey) and T-30-185-587 (Teacher's Retirement in New Jersey.)

(2) ASSUMPTIONS: UNLESS OTHERWISE SPECIFIED, THE CALCULATIONS SHOWN REPRESENT the following:

INTEREST:	7 0%
Mortality:	1989 George Buck Tables: 40% Male + 60% Female
COLA:	2 5%
Salary Scale	4 17%
Withdrawal	0%
Disability	0%

Annual payment frequency, no supplemental benefits or optional forms.

(3) SALARIED EMPLOYEE BENEFITS PROVIDED BY MAJOR U.S. EMPLOYERS IN 1989; Hewitt Associates; 1990

(4) A SURVEY OF RETIREMENT, THRIFT, AND PROFIT SHARING PLANS COVERING Salaried Employees of 50 Large U.S. Industrial Companies as of January 1, 1989; The Wyatt Company, 1989

(5) NCPERS SURVEY OF MEMBER PLANS, NATIONAL CONFERENCE ON PUBLIC EMPLOYEE Retirement Systems, January, 1990.

(6) REPORT TO THE GOVERNOR, NEW JERSEY STATE PENSION STUDY COMMISSION; MARCH 15, 1984.

(7) 38TH ANNUAL REPORT; STATE INVESTMENT COUNCIL; DEPARTMENT OF THE TREASURY.

(8) EBRI QUARTERLY PENSION INVESTMENT REPORT, 4TH QUARTER, 1989.

(9) THE FUTURE OF STATE AND LOCAL PENSIONS, THE URBAN INSTITUTE, ET AL, 1981

(10) BENEFITS QUARTERLY, A Managed Care Approach to Outpatient Substance Abuse Treatment, Grant D. Lawless, First Quarter, 1990

(11) 1989 HAY/HUGGINS BENEFITS REPORT

(12) FOSTER HIGGINS HEALTH CARE BENEFIT SURVER 1988

(13) FOSTER HIGGINS HEALTH CARE BENEFIT SURVEY 1989

(14) HCHS, National Hospital Discharge Surveys

(15) Selma Taffel, STATISTICAL BULLETIN, October - November, 1989

(16) Committee of Utilization Management by Third Parties, Institutes of Medicine, November 1989

(17) MODERN HEALTHCARE, Volume 20/No. 36, September 1990