ALL MEMBERS PRESENT

ALSO PRESENT:

E.A. GRANATA, PUBLIC SERVICE COMMISSION
HEBER P. HARDY, PUBLIC SERVICE COMMISSION
FLOYD L. EDSALL, NEVADA MILITARY DEPARTMENT
JOHN R. GAMBLE, DEPARTMENT OF EDUCATION
W.W. WHITE, INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT
V.N. LITTLEFIELD, STATE PLANNING BOARD
PARKE SYERS, ASSOCIATED DL&A/C CONTRS OF NEVADA, IN
JOHN J. ESPIL, UNR
JOE MIDMORE, ASSOCIATED GENERAL CONTRACTORS
RUSS MAC DONALD, LEGISLATIVE COUNCIL
R. WESTERGARD, STATE ENGINEER
ROY ROBINETTE, LAKE TAHOE LANDOWNER

Chairman Smith called the meeting to order.

AB 325 - Increases maximum draught from wells for domestic purposes not requiring permits.

Mr. Westergard explained to the committee that the State Engineer's office had no strong feeling about the bill, but would suggest an amendment clarifying domestic use, limiting the term to one dwelling.
Assemblyman Branch questioned the amount of water needed for use by one household.
Assemblyman Getto explained that this bill would permit small land owners, with large gardens and domestic animals to draw additional water for such purposes.
Assemblyman Hawkins questioned the need for additional water in some parts of the state and asked the average amount used by each household in Las Vegas.
Mr. Westergard said he had some figures on this matter, but had not brought them with him.

AB 347 - Clarifies law governing ordering members of Nevada National Guard to active duty.
General Edsall explained to the committee that this simply clarified the wording of the present statue.
Assemblyman Bryan asked if there was any objection from the Governor's office corncerning the bill.
The General replied they had not objected.

AB 348 - Changes status of army and air technicians under the Department of the Military to that of federal employees.
General Edsall explained that in January of 1970, all National Guard personnel had been placed under civil service, prior to that time they were members of the Nevada State Employees'

Retirement System. At that time the employees voted either to be under civil service or stay under the Nevada system. This bill would just make what has already happened concur with the Federal law.
Assemblyman Lauri asked the number of employees effected.
General Edsall answered that it would enclude about 160 people.
Assemblyman Branch asked if any persons would be hurt by this bill.
General Edsall explained that since they had the option, the one that would be hurt voted to remain under the Nevada system. Any new employees will be under civil service.

AB 385 - Adopts Uniform Plumbing Code; allows local government to adopt such with modifications.

Mr. Syers spoke in favor of the bill and gave his organization's endorsement of it. He stated that it was considered a health code by them and urged that it be adopted.
Chairman Smith read the amendments to the bill, which had not yet been printed and Mr. Syers agreed with the amendments.
Assemblyman Branch asked if the bill had anything to do with the qualification of plumbers.
Mr. Syers answered no.

Assemblyman Bryan asked a committee introduction of a BDR that had been given to him dealing with a matter for the Judiciary Committee.
Assemblyman Ronzone moved a committee introduction.
Assemblyman Getto seconded the motion.
The motion carried.

AB 290 - Authorizes Town of Carlin to improve, equip its samitary sewer system and to issue general obligation bonds, other general obligation securities for such project not a certain amount.
Assemblyman Glaser spoke in favor of the bill pointing out to the committee the need for immediate action. He stated that he was bothered by the fact that there would not be a vote on the bonds, however, everyone in Carlin realised the necessity for such a project and did not feel that a vote was needed.
Mr. MacDonald told the committee that such bonds were legal and needed.
AB 333 - Authorizes Clark County Sanitation District No.1 to improve, equip its sanitary sewer system and to issue general obligation bonds, other general obligation securities for such project not to exceed $6,500.000.
Mr. MacDonald explained that this was exactly the same situation and type of bond that would be issued in Carlin
Assemblyman Branch pointed out that in cases such as this the rates to users rise as the fee for the service is charged and also the obligation to pay the bonds is included in the monthly rate.
AB 526 - Amplifies definition of "local Government" in Local Government Purchasing Act.

Mr. MacDonald explained that this bill was introduced at the request of the Tax Commission and suggested that Mr. Lein be asked to testify concerning it.

AB 187 - Provides additional restrictions on formation and management of general improvement districts.

Mr. MacDonald explained that this bill had been drafted at the request of one of the Washoe County Assemblymen and that it was based on the findings of the Grand Jury Report. He suggested that the committee read the report and that he would see that each member had copies of the report. He pointed out some technical amendments that will have to be made in the bill. He also suggested that the committee talk to some of the improvement district officials and get their side of the story.

AB 421 - Requires certain general improvement districts to share excess capacity.
Mr. MacDonald said that Mr. Torvenin had had some amendments drawn on this bill.

Mr. MacDonald pointed out some changes that will have to be made in all statues dealing with general improvement districts.

AB 329 - Clarifies compensation for school district trustees; repeals antiquated provision relating to county school boards.
Mr. Gamble explained that this bill would clarify the existing statue.
Assemblyman Getto asked if the school districts ever paid milage to school trustees.
Mr. Gamble replied that not in many cases, not even with the State Board of Education.
AB 330 - Increases amount of contract which can be let by a school district without approval of State Planning Board.
Mr. Gamble explained that due to inflation the present limit is too low and should be raised.
Mr. Hancock of the State Planning Board Agreed with Mr. Gamble.
AB 327 - Permits contracts for personal services to be excepted from bidding requirements of Local Government Purchasing Act and raises amount of contract not required to be advertised.
Mr. Gamble explained that this bill had been introduced at the request of the State School Trustees Association and it was principally for things such as insurance.

AB 221 - Extensively amends Nevada Improvement District Act.
AB 187 - Provides additional restrictions on formation and managment of general improvement districts.
AB 421 - Requires certain general improvement districts to share excess capacity.
Mr. Granata of the Public Service Commission spoke concerning AB 421 explaining that the Commission now has jurisdiction over

water and sewer, but not over garbage and strom damage as is proposed in the bill. He said the Commission would have to hire additional personnel to control these factors. He also objected to the time limit of thirty days mentioned in the bill and said that the Commission could not act that quickly. Mr. Granata also pointed out that AB 4421 would allow file applications every thirty days and that this could tie up the Commission and as far as being able to determine the capacity of a district, they would not be able to do so with the staff they now have.
Assemblyman Hawkins asked if an amendment giving the Commission more time would be helpful.
Mr. Granata replied that it would help.

Mr. White stated that AB 421 was a bill which was unrealistic and unworkable and that he was against it. He stated that he favored AB 160 or even AB 264. He declared that it was impossible to determine excess capacity because of the number of people using the facility at different times.

Mr. Robinette explained that he had stated his views in a letter to all committee members and only wanted to point out to the committee that some solution had to be found for this problem. He also stated that they committee should keep in mind that federal funds were involved in the project.

Chairman Smith requested that Mr. White and Mr. Robinette and their attorneys get together and work out some bill from one of the existing bills or work out a new bill that will be agreeable to all and meet with him on Friday.

385 a98
Mr. Joe Midmore of the A.G.C. asked to speak to the committee regarding AB ~~325~~. He stated that his organization favored the bill and offered the suggestion that only one board be set up in the legislation in order to make it more workable and easier to deal with.

STATE OF NEVADA

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

OFFICE MEMORANDUM

To: Assemblyman M. Kent Hafen
Assemblyman Virgil Getto

Date: 2-22-71

From: Roland Westergard, State Engineer

Subject: A.B. 325

In reviewing the amendments proposed in A.B. 325, we have considered the possibility of also amending NRS 534.010 (c) which provides as follows: "'Domestic Use' extends to culinary and household purposes, the watering of a family garden, lawn, and the watering of domestic animals." The Statute has been interpreted, and I think properly so, to include culinary and household purposes in a single family dwelling, or living unit.

If the quantity allowable under domestic use is to be increased, perhaps the definition should be amended as follows: "'Domestic Use' extends to culinary and household purposes, <u>in a single family dwelling,</u> the watering of a family garden, lawn, and the watering of domestic animals."

We would appreciate your consideration of this suggestion and would be happy to discuss it if you so desire.

For your additional information, an Act in 1939 provided for a maximum of 2 gallons per minute from a domestic well (1440 gallons per day is equivalent to 1 gallon per minute, and 2160 gallons per day is equivalent to 1.5 gallons per minute). In 1955, an Act was passed which changed the limitation to 1440 gallons per day.

dc

bcc: Elmo
Bob Stewart

INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT

AREA CODE (702) 831-0717
POST OFFICE BOX 78
INCLINE VILLAGE, NEVADA
89450

W. W. WHITE
GENERAL MANAGER

J-55

March 10, 1971

Assemblyman Hal Smith
Chairman
Assembly Committee on Government Affairs
Nevada State Legislature
Carson City, Nevada 89701

Dear Mr. Smith:

At yesterday's hearing discussing A.B. 421, you asked for a copy of the Tahoe Regional Plan as it involves Incline Village General Improvement District. A copy of this is enclosed. The portion you are interested in is on Page 6. I am attaching a map showing the areas discussed.

Following the hearing I did discuss A.B. 421 with Mr. Robinette. He seems to insist that the purposes of this bill be included in some manner in an amendment to A.B. 264. As explained before, this bill is unworkable, it is vague and only academic because the District does not have a capacity that will serve an area that we are not even considering in this discussion. Mr. Robinette seemed to be trying to force upon this District a requirement that was found to be unpalatable to the outsiders in Assembly Bill 160.

I would reiterate that the sewer and water systems of Incline are paid for by special assessments, those special assessments are assigned to 16,000 pieces of land, that on more than 12,000 of these parcels the water and sewer system is already extended to those properties and these capacities cannot be sold without a replacement of the capacity withdrawn. At this time, on weekends the plant is overloaded. By August or September there will be capacity but that is owned by the present property owners.

There is no problem with serving those customers adjacent to this subdivision and to reasonably those other customers with individual dwellings against the California State line. We believe it is impractical and too costly to serve that group against the California State line, but note my handling of this problem in Item d on Page 7.

Hal — Just got this Woody

I have not seen the amendment to A.B. 264 and would hope to pick up the latest copy when I am in Carson City on Friday morning. District has no objection to "reasonable annexation charge" in the original 264 in Section 1, nor to the wording, 318.258-5, Line 26. Neither would we have objection to the inclusion of a provision for approval of the rate by Public Service Commission.

After my talk with Mr. Robinette it appears to me that he has two problems. One, they would like to retain their garbage service which is by a California organization providing a service they prefer to that by Independent Sanitation, who has our franchise. We have tried to go along with this arrangement between these two sanitation companies but if the legalities are checked, that California organization cannot transport garbage across the state line. This is a very small item to hold up a bill as important as this one.

Another item they use as an excuse for opposing A.B. 264 is our recreation charge. I would not object, and it could be clarifying and helpful to this bill, if an amendment was provided saying that the reasonable annexation charge shall only be applied to those services that the annexed area will benefit by. This would clear up the question that these people cannot use the beaches by reason of certain deed restrictions and, incidentally, this is no problem because they have their own beaches.

In closing this communication could I impress upon you that the annexing of these areas is of no benefit to this District. They should be the ones trying to provide a vehicle for our service. This District has spent much time and effort to assist them and, incidentally, the State of Nevada in carrying out the Governor's program to protect Lake Tahoe.

We would appreciate a real serious consideration of A.B. 264 because if this isn't passed then the Governor's program will fail in the Washoe County portion of Lake Tahoe because this District simply cannot serve these people without this enabling legislation.

Could I point out that present N.R.S. 318 does provide their annexation at no charge but in this case this District has been advised of a potential taxpayers suit to prohibit our annexing without a reasonable charge.

Would you please arrange for your secretary to have a copy of A.B. 264 with the amendments so that I can pick this up when I am testifying in the Senate on a similar bill on Friday morning.

Mr. Robinette has indicated that he is in agreement with A.B. 264 as to reasonable charge and review of Public Service Commission and he has so communicated to you.

Very truly yours,

INCLINE VILLAGE GENERAL
IMPROVEMENT DISTRICT

Wally White

W. W. White
General Manager

WWW/av

Enc.: Report
Map

cc: Senator James Gibson
Senator Thomas R. C. Wilson

2-58

STATE OF NEVADA
Employees Association, Inc. / Post Office Box 1016 - Carson City, Nevada 89701
Phone 882-3910

March 10, 1971

Honorable Hal Smith, Chairman
Assembly Government Affairs Committee
Legislative Building
Carson City, Nevada 89701

Dear Mr. Smith,

The State Employees Association wishes to make its position clear regarding various retirement bills now pending before the 56th Session of the Nevada Legislature.

We are quite concerned about the large number of retirement bills. At last count there were over twenty. Earlier in the session when there were fewer bills we supported several. Now, however, the numbers of such measures and their unknown impact upon the retirement system leads us to take a strong negative stand.

Before the start of this legislature our members had decided not to seek any improvements in the system this year. Our attitude was one of "hands off" for the time being. We can no longer take this position.

It is the position of the State of Nevada Employees Association that no retirement legislation with any fiscal impact be passed this session. We would like to support ACR 35 with some modifications to provide for an extensive two year study of the Public Employees Retirement System.

There currently exists disagreement over just what the system can absorb and what the costs are of various proposals. A full and complete study would answer these questions.

We realize that we are taking an unusual position for an employee organization but it is caused by a great deal of anxiety among our members concerning the Public Employees Retirement System and the effects of current legislation.

Our position against these measures does not extend to purely technical bills.

It was because of our deep concern that we retained Mr. Kenneth Buck as a retirement consultant. Mr. Buck has prepared a letter concerning two of the major bills.

Sincerely,

Bob

Bob Gagnier
Executive Director

cc: Members, Government Affairs

BG/kr

Mister Chairman:

My name is Keith Henriksen. I am representing the peace officers and firefighters of the state of Nevada along with several employee groups who will say who they are and who is speaking for them. I believe that my first duty would be to prove that S.B. 74 and A.B. ~~454~~ 443 which are presently being considered are actuarily sound. Our estimated costs for the benefits that we are asking ~~for~~ are based upon two actuarial surveys; one by Coates Hurfurth and England; the other by Barbanell Leiver, actuaries and pension fund consultants in San Francisco.

In addition to these two actuarial reports we base some of our figures upon the National Board of Life Insurance Underwriter's statistics which show a life expectancy of 67 years for the average working American male but only 57 years for firefighters and most peace officers. Our estimated cost for reducing retirement ages is 1% each from the employee and the employer. This would bring in a substantial amount of money and would be actuarily sound as is shown in the table on page 5 in the brief before you.

On page 5, about the middle of the page, it shows that the amount needed to fully fund this proposal is 9.8% from each employee and employer and, it also indicates in this survey that if, say, 30% of them retire then the figure would only be 30% of this. I would now direct your attention to page 11 of the brief and say that, based upon the best information we can get and to quote from page 11, "There are no national figures available but talks with officials in many industries suggest that the nationwide rate for early retirement is probably somewhere around 10%. Now using this 10% figure for the overall early retirement rate, we found that this 9.8% actually becomes .98%, therefore the 1% estimate by us of the cost of this benefit. The increase of post retirement benefits by 1-1/2% up to 3% we are estimating to cost the same as it was originally set at 3/4 of 1%. There is reason to believe that this figure may be somewhat high, however, we will use it. Mr. Kerns will elaborate on that later.

The separate benefit for peace officers and firefighters only, providing disability benefits, again as there are no experience factors, we have estimated the cost of this benefit to be 1/2 of 1% for each the employee and employer. This would bring in approximately $280,000 the first year and would cover 3,000 eligible peace officers and firefighters. Again, directing your attention to the brief on page 18, you find some injury rate comparisons for peace officers-firefighters, which shows in some years that firefighters are higher and other years police officers are higher. Again, a temporary total which would be as close as we can arrive at for this particular benefit we are asking. There are only a few years in which statistics have been given and they show that 18 peace officers were temporarily totally disabled and we are assuming that this figure would hold true for the permanently totally disabled with 17 firefighters. These are national statistics.

According to these statistics and based upon the number of peace officers and firefighters in the state of Nevada, we would estimate that one or two firefighters and one or two peace officers would be permanently disabled and eligible for this benefit in any given year. The reason, of course, that we are asking for this benefit is the hazardous nature of the job and the trouble that we are currently having obtaining new recruits into the services. We find that we are competing with other industry, that we are competing with the Armed Forces. In trying to obtain people to come to work for our different entities, we find that offering benefits, such as, early retirement, increases in retirement such as the 3% proposed post retirement increases and offering them disability coverage from the day they come to work, that it is easier to get new recruits.

The last item that I should cover is, that this only adds up to approximately 2-1/4% for peace officers and firefighters to pay for these benefits, and only 1-3/4% to pay for the benefits for all others. This leaves a 1/4% which would help reduce the unfunded liability by contributing this amount without any benefits attached to it.

1. 61

I believe at this time that the greatest fear of the Legislators is that the Retirement Fund is in trouble because of this so called unfunded liability growth. On page 1A of the brief, you'll find that there are several methods that are possible to reduce the unfunded liability. Without going into them in detail I would direct your attention to page 9 of the survey of Barbanell Leiver which gives some of the possibilities of reducing the unfunded liability level.

On page 1A it does outline some of the questions that we have about the retirement system and whether the system is really in trouble or not. The growth of the system has been consistent, as shown on page 2 of the brief before you, whereby in 1967, the growth was approximately 12 million, that the retirement allowances paid were approximately 3-1/2 million, the membership around 19,000 and the retired persons around 1,500. Now, in the years following those stated amounts, we find that the system is growing very steadily as you can see from the figures on page 2, and that the fund is actually not paying out more than it's taking in and it is actually earning more interest than is being paid out. On page 1, you will find that using just real rough figures a 5% interest being earned would earn approximately 7 million dollars a year and as indicated on page 2, somewhere in the neighborhood of 6.8million would be paid out this year. Only 6million was paid out in 1969 so I believe that there is much more interest earned than retirement allowances paid as is shown. We would also at this time question the unfunded liability and upon the basis that it is determined. The setting aside of the unfunded liability; is it based at the time when the person enters the system; when he obtains the vested interest; or when he reaches retirement age? We do not believe that a liability should be set aside for a person until he has been in the system long enough to obtain a vested interest. We are also questioning whether the money should be set aside or whether or not this system could actually operate on a current basis, such as 23,000 members are contributing and they, directly, using the amount they contribute, would pay the retirement for those who are on retirement. This is not a bad concept. Our system is based, of course, using somewhere in between, as has been stated by the actuaries. We believe that all active members will never terminate, we believe that there will always be 20 to 25,000 people in the system, and if necessary, these people could support those who are in retirement and so on ad infinitum. Therefore, when someone says that the fund is in trouble or this unfunded liability is getting out of hand, I just can't buy it. There has been a suggestion of separating the peace officers and firefighters in the system as indicated on page 6 in the brief, whereby Coates Hurfuths and England made the suggestion so that a separate experience can be developed. With the possibility of the state employees not wanting to obtain the new benefits that we're asking for and that they're possibly being amended to do this and take those people out who don't want to be in, I believe that separate experience can be developed for police and fire groups, for teacher groups and any other groups who want to pay for benefits that they wish to receive. This is not, again, a new concept. It simply involves a little extra bookkeeping, again, we would pay for it if necessary, we currently pay 30¢ a month, I, and we would be willing to pay 40¢ a month if it was necessary to develop this separate experience, I'm sure the teachers' groups and some of the other groups would like to be separated and receive separate benefits. Without belaboring the point, I would at this time, say that the brief in front of you is a fairly complete analysis as we see it of the retirement fund. It is analysis of cost we feel is actuarily sound and that our proposals are not out of line and at this time, or some later date, if the Committee wishes I would be happy to go over any part of the presentation that we've made here today or answer questions right now on any part of this brief ~~that you have before you~~. We do this now or after Mr. Kerns makes his presentation as to figures that will support the statements I have made. Mr. Chairman, do you wish me to call Mr. Kerns or do you want the Committee to ask questions of me?

COSTS

1. Reducing retirement ages (SB-74, AB ~~434~~ 443) estimated cost - 1% each - employers and employee (would bring in 4,400,000.00 the first year.)

2. Increase post retirement by 1-1/2% (from 1-1/2% to 3%). Estimated cost 3/4 of 1% each - employers-employee (would bring in 3,300,000 first year) (110,000. paid out per year now.)

3. Disability for Peace Officers-FireFighters (from 1st day on job) Estimated cost 1/2 of 1% each - employer and employee. (Would bring in 280,000. the first year) (3,000 eligible.

4. At least 1/4 of 1% left over to help reduce the unfunded liability. (would bring in 1,100,000 per year)

5. At an average of 5% interest being earned by the retirement fund now - it earns approximately 7,000,000 per year and only approximately ~~5 to~~ 6 million is being paid out to retirees.

PAGE 1.

METHODS POSSIBLE TO REDUCE SO-CALLED UNFUNDED LIABILITY

1. All active members will never terminate.

2. Is unfunded liability based upon setting aside the projected amount needed to retire that person:
   1. at the time he enters the system?
   2. when he obtains a vested interest? (at 15 years service-or 20 years service)
   3. when he reaches retirement age?

3. By recovering lost interest income (page 27-28, page 3, #7)

4. By basing costs for benefits on other than a ~~frilly~~ FULLY funded basis.

5. By basing assumptions on actual earning of the fund (ie. if earning 5-3/4% and only using 5-1/2% on projections.) (Page 9, #1)

6. Using experience rates to evaluate "Survivor Benefit" and "Post retirement benefits". (Page 9, #2)

7. By reducing estimated percentage of those who will retire when eligible. (Page 11) (I.E. 30% down to 10%.)

1.A

1. Reserves - $48,355,264.45 - retired members
   $ 9,286,673.34 - post retirement increases

2. The National Board of Life Insurance Underwriters Statistics - a life expectancy of 67 years for the average working American male - but only 57 years for firefighters!

3. Suggestion of separating P.O.-F.F. in system, by Coates-H.E. page 6.

4. 1-6-71 Cost Estimates of CHE based on evaluation of system as of 6-30-68 at which time interest earned % was at 4-1/2% now over 5-1/2%.

3.

1.
1.A. 3.

3 (cont.)

5. All costs figured are to "fully fund" the proposal. Page 5, page 22. i. e. - if only 10% would take benefit - then only 10% of additional contribution indicated would be required. (Page 11) 2-63

6. Confusion in estimates Coates Herfurth England - survey- ours 9.8% to fully fund - 1-6-71 letter says 9.8 (2.5%) of payroll. 30% figure - ours 10%.

7. Rates would reduce as new people (POFF) entered system - page 5. Page 22.

8. Interest lost on uninvested cash for 1969 - $72,550. (Page 27 & 28)

PAGE 2

1. Growth of System
   67 - Grew by 12,315,756.92
   68 - " " 14,948,634.03
   69 - " " 16,370,034.69
   6-~~69~~ 70 to 12-70 grew by 10,433,939.02 - 6 MONTHS

2. Ret. allowance paid
   67 - 3,331,119.42
   68 - 3,886,819.96
   69 - 4,515,800.46
   6-~~69~~ 70 to 12-70 - 3,393,348.11 - 6 MONTHS

3. Membership (approx.)
   6-67 - 19,425
   6-68 - 20,704
   6-69 - 21,595
   6-70 - 23,358
   12-70 - 23,315

4. Retired Persons
   6-67 - 1,538
   6-68 - 1,758
   6-69 - 1,992
   6-70 - 2,170
   12-70 - 2,341

COATES, HERFURTH & ENGLAND
CONSULTING ACTUARIES
320 CALIFORNIA STREET
SAN FRANCISCO 94104

OFFICES IN
SAN FRANCISCO
DENVER
PASADENA

TELEPHONE
(415) 433-4440

July 13, 1970

Captain Keith Henrikson
1611 Clemson Road
Reno, Nevada 89502

Dear Captain Henrikson:

Estimated Cost of Providing Certain
Benefits to Police and Fire Members
under the
State of Nevada Retirement System

In accordance with your request of June 18, 1970, and a letter from Ken Buck dated July 10, 1970, authorizing us to use the Retirement System data of July 1968 to make cost estimates for you, we have determined the following:

I. What is the estimated additional contribution as a percentage of payroll required to allow police and fire members to retire at any age after ~~30~~ 20 years of service?

II. What is the estimated additional contribution as a percentage of payroll required to allow police and fire members to retire at any age after 25 years of service?

You have requested that we furnish this information on the following basis:

a) If the estimated additional cost is divided equally between the employee and employer, with the provision that the employee on termination or death receives a return of his entire contributions.

b) If the estimated additional cost is borne entirely by the employer.

c) If the estimated additional cost is divided equally between the employee and employer, with the provision that the employee on termination or death does not receive the return of his contributions which are in excess of the present level of contribution (i.e., 6% of payroll).

Indicated below are the results of our analysis expressed as a percentage of payroll:

		Employer	Employee
I.	a)	9.8%	9.8%
	b)	17.7	-0-
	c)	8.85	8.85
II.	a)	2.5	2.5
	b)	4.6	-0-
	c)	2.3	2.3

The indicated additional rates of contribution assume that all members will retire at their very first opportunity after they attain the years of service making them eligible for the proposed benefit. If only a portion of the membership, say 30%, retired when given the first opportunity to do so, the additional rates of contribution would be 30% of those indicated.

Because the greatest expense to provide the proposed benefits is on account of the past years of service during which time contributions were not made in anticipation of these benefits, the introduction of the above increased rates pertains to the present police and fire members, future new entrants into the System will cause this additional rate to reduce.

2- 66

In connection with this assignment, we have reviewed the police and fire provisions of the following governmental retirement systems:

1. State of Oregon
2. State of Washington
3. California Highway Patrol
4. California Agency - Safety
5. State of Arizona
6. State of Utah (State and Local Police)
7. State of Utah (Firemen)
8. City of San Francisco (Police and Fire)
9. City of Los Angeles (Police and Fire)
10. Wyoming State Police
11. California County Systems

Of those Systems reviewed, none have your precise proposal as regards eligibility for retirement. The California Highway Patrol provides that members may retire at age 50 without a years of service requirement, while the Cities of San Francisco and Los Angeles provide that members may retire at age 50 after completing 25 years of service. However, none of these California Plans provide as liberal a benefit as 50% of final salary after 20 years of service, as you requested.

It should be noted that under your proposals, the value of the benefits to the Police and Fire groups is, on the average, at least double that under the present System. As the actuaries for the Nevada State System, we, as you, are concerned with the soundness of the entire System. Therefore, if your proposals are adopted, we would strongly recommend that in each future valuation of the System, the Police and Fire group be separated from the miscellaneous members and separate experience developed. In this way, rates could be developed specifically for your membership.

You have also requested that we determine the actual dollar cost per member per year if these proposals are adopted, in order that provision

2- 67

might be made to increase various insurance rates in the State to fully or partially provide for the increased benefits.

The cost estimate shown below assumes an average salary of $8,000 per year. Such cost would proportionately increase or decrease, depending on the average salary of the group. In addition, were only 30% of your membership to retire at the first opportunity to do so, under the provision, then only 30% of the developed cost would be required.

<u>Cost for Present Membership</u>

I. If members are allowed to retire after 20 years of service

- $1,416/member/year

II. If members are allowed to retire after 25 years of service

- $368/member/year

The idea of obtaining contributions from insurance premiums collected has been used in other governmental plans. In general, however, this method is not satisfactory, because there is no direct relationship between gross premiums collected and retirement benefits paid.

If we can be of further assistance to you, please feel free to call on us.

Sincerely,

COATES, HERFURTH & ENGLAND
Consulting Actuaries

By________________________
Sanford M. Jacobson

SMJ/skd
cc: Mr. Donald D. Anderson

397-3553 (CODE 415)

Barbanell-Liever, Inc.
Employee Benefit Consultants
Pension Fund Advisors

405 MONTGOMERY STREET · SAN FRANCISCO, CA., 94104

2- 68

December 31, 1970

Mr. Keith J. Henrikson, Chairman
Nevada Joint Legislative Committee
Peace Officers -- Fire Fighters
224 Smithridge Park
Reno, Nevada 89502

Dear Mr. Henrikson:

Public Employees' Retirement System--State of Nevada

In accordance with our assignment, we have reviewed the actuarial reports of 1956, 1960, 1964, and 1968, the report to you dated July 13, 1970 from Coates, Herfurth & England regarding estimated costs for certain benefits to police and fire members, the retirement plan, recent copies of statements of Receipts, Disbursements, and Balances, and other miscellaneous related material. We have evaluated this information and offer the following comments and opinions.

The actuaries have continuously expressed in each actuarial report that it is becoming increasingly important that consideration be given to limiting the amount of unfunded liability accruing under the system (as of the last report this liability was more than $117,000,000). With a continuously increasing interest assumption without off-setting funds to stabilize the liability, it becomes a larger problem each year. There also is an increasing multiple effect each time benefits are revised or added. We suggest that future discussions regarding contribution levels include something to stop the unfunded liability from growing. It is our understanding that the intention of the Retirement Board is not to fully fund the plan. We do not disagree with this position but feel it is important that enough funds be kept in reserve so that active employee contributions do not eventually become needed to pay present retirement benefits. Keep in mind, however, that should the State elect to change the ratio of its contribution, it could solve this financial problem.

There is obvious concern by the actuaries as to the financial stability of the plan based on their present assumptions and level of employee and employer contribution. With the information we have, there is no way

8.

2-69

that we can evaluate the real experience of the System. There are, however, three areas where we think you would want to question the basis for the assumptions before accepting any future contribution levels for the existing plan of benefits or for increases in benefits.

1. What has been the actual annual earnings on the fund? Each actuarial report has shown an increase in the interest assumption (from 2-3/4% to 4-1/2%) but has merely stated that the earnings have been in excess of the suggested assumption to be utilized. This information should be readily available to you. If there has been conservatism with this assumption and a higher interest assumption could be used, the effect could be a reduction in the amount of the unfunded liability or perhaps a lower level of contribution than was recommended in the 1968 actuarial report.

2. On what basis was the estimate of liability for the "Survivors Benefit" and "Post Retirement Benefit" made? We imagine that these original estimates were also on a somewhat conservative basis. Now that several years have passed, it is feasible that actual experience may show that a reduction in these estimates is appropriate. If so, again it will help in the areas of reducing the unfunded liability and the eventual contribution level.

3. In the July 13, 1970 letter of cost estimates, it was suggested that perhaps 30% of those eligible for retirement would retire when first eligible. Is this 30% what the actuary would use in establishing the contribution level? We feel that clarification is needed on this point since it is directly related to the needed contribution amount.

To our knowledge, there are no national statistics available as to the percent of employees who take an early retirement when first eligible. As stated in an article in the July 17, 1970 Wall Street Journal, officials in many industries suggest that the nationwide rate for early retirement is probably somewhere around 10%. If the actuaries would, in the final analysis, want to use the vaguely suggested 30%, we think you would be sage in asking them to substantiate their decision.

A police officer or fire fighter could retire at a relatively young age under your proposed provisions and still be employable in a different field. It is our opinion, however, that the retirement benefit, while relatively substantial, would not influence 30% to actually retire. We think the 1½% increase in retirement benefit for each additional year, maximum 10 years, is incentive enough for most employees to continue working.

9.

Mr. Keith J. Henrikson
December 31, 1970
Page Three

In summary, we have considered all actuarial assumptions as a whole when evaluating the reports. We feel that the material we had adequately explained the assumptions used except for those mentioned above. Our comments are directed to those areas that we feel need more clarification so knowledgeable decisions can be made as to future benefits and contribution levels.

Very truly yours,

BARBANELL-LIEVER, INC.

Jerry L. Lane
Vice President

JLL:cpn

cc: R. Ashleman

July 17, 1970
WALL STREET JOURNA

2. 71

Hanging On

Most People Eligible For Early Retirement Prefer to Stay on Job

Tenacity Upsets Some Firms Trying to Cut Back; Lack Of Funds Deters Workers

Mr. Dowd Returns to Work

By ERIC MORGENTHALER
Staff Reporter of THE WALL STREET JOURNAL

For years you grumble about your job. You think your boss is stupid. You say you're overworked and underpaid. You can't stand the grouch at the next desk. You count the years till you're 65, when you can start collecting pension checks and begin to spend some time on the golf course getting rid of that slice. You'd give anything to leave right now, you say, if only you could afford it.

And then along comes the company personnel man, and he says, "Well, Mike, you've been here a long time. You're 55 now. How would you like to retire early under our new pension plan?" Do you grab the snapshot of your kids off the desk, roll down your sleeves and speed toward the nearest exit? No. You fight like everything to stay on till you're 65.

"Early retirement? Hell, we have trouble getting them out at 65," complains an executive with a major manufacturing firm that allows its employes with 10 years' service to retire as early as age 55. It's the same in nearly every industry. Companies are discovering that the vast majority of both blue-collar and white-collar workers who could retire early simply don't want to.

This reluctance to leave is proving especially distressing to industry these days. Many firms are trying to pare—or slash—their payrolls during this recession, and they would prefer to do this as painlessly as possible. The most painless way is to fire nobody and just not replace those who leave. At many companies, the desired reductions could be achieved through attrition—if only more people would retire early.

Unions Frustrated, Too

But most won't. "It's a strange thing, but the older you get the more you like to work," says Don Kirkpatrick, a personnel official at McDonnell Douglas Corp. in St. Louis. Union officials, who have worked with many managements to draw up early retirement programs, are equally frustrated. They would rather see older members retire than younger ones laid off.

Companies that have had early retirement programs for several years say that the number of employes opting to leave early is increasing, but in most cases the figure is still far less than a quarter of those eligible. At Westinghouse, where an employe with 30 years of service can retire at age 60 without a reduced pension, only 12% of those eligible to retire early did so in 1968. To be sure, that's up 50% from the 8% of 1964, but it's still amazingly low, company and union officials say.

Eastman Kodak, which offers two liberal programs for early retirement, says only 5% of the eligible employes retired early last year. The figure is 8.5% at a big steelmaker and is in the 5%-to-10% range in most other industries. One big exception is the oil industry, where companies report early retirements as high as 64% of those eligible—and where companies deny employe allegations that the rates are high because the companies do everything possible to force the workers out. A high rate in the auto industry—nearly 50%—presumably reflects the fact that assembly line work is terribly dull and many employes can't stand to stay a moment longer than they need to.

There are no national figures available, but talks with officials in many industries suggest that the nationwide rate for early retirement is probably somewhere around 10%.

The Main Reason: Money

Why don't the workers leave early? Money seems to be the main reason, although a reluctance to part with perquisites such as a secretary or a company car is also a factor.

No matter how generous the pension, the man who retires probably takes a substantial cut in income. A recent study by Bankers Trust Co. of New York indicates that a person whose average annual compensation during his final years of employment is $12,000 retires with a pension equal to 36% of that; Social Security benefits raise that figure to 52%. A person whose final salary was $40,000 retires with a company pension equal to 42% of that, the study found; Social Security benefits raise that to 47%.

If a pensioner retires before age 62, however, he can't supplement his pension with Social Security. And he can't get full Social Security benefits until he is 65.

Also, since most pensions are based in part on a worker's final salary, some workers want to stick around the extra years in hopes of a raise that will result in a higher pension. That's why John McKee decided not to retire three years ago from his job as a clerk in the accounting department at Skelly Oil Co. in Tulsa. Mr. McKee was 61 then, and he would have been eligible for a pension of $305 a month, about half the salary he was then making.

"I could have gotten by on what I would get," he says. "But let's face it, I want to live just as well after I retire as I did before. I don't want to curtail my means of living. I went through that in the Depression." He figured that if he kept working he would get a raise, and then his pension would go up. In fact, he has gotten more money since then and his pension when he retires will be around $400 a month. And, says Mr. McKee, "the way this inflation business is going I don't know then but what $100 might buy a lot of beans and cornbread in three years."

"Tired of Doing Nothing"

A survey by the Institute for Social Research at the University of Michigan in 1966 and 1967 found that most persons felt they couldn't retire on less than $4,000 a year. The figure is probably higher now. In the auto contract talks that just started, for instance, the union is seeking retirement after 30 years of service at 70% of the worker's final wage, with a minimum of $500 a month. A veteran auto-

Please Turn to Page 18, Column 1

Hanging On: People Eligible to Quit Early Prefer to Stay on Job

Continued From First Page

worker currently can retire at 60 with a p[...] sion of $400 a month.

Especially for white-collar workers, th[...] are factors other than money. "Middle-cl[...] professionals generally want to keep workin[...] They get a psychological satisfaction fr[...] their jobs," says Norman Sprague, an offic[...] at the National Council on Aging in New Yo[...] That's the experience of Burt Dowd, w[...] retired in 1963 as superintendent of producti[...] engineering at United Gas Pipeline Co. M[...] Dowd, now 63, says, "I got tired of doing no[...] ing," so he went job hunting and now is a v[...] president of Resource Exploration Inc. Shreveport, La.

Not everyone is unhappy with early retir[...] ment, of course. R. E. Garrison, 63, who too[...] up golf and organ-playing after retiring fr[...] Phillips Petroleum a year ago, couldn't be hap[...] pier. "I've finally found time to do things I'[...] always wanted to do," he says. Does he eve[...] have second thoughts about leaving his job as purchasing agent?

"Oh, hell no!" he replies. "I'd never g[...] back to work."

11.

STATE OF NEVADA
PUBLIC EMPLOYEES RETIREMENT BOARD
P.O. Box 637
CARSON CITY, NEVADA 89701

DONALD D. ANDERSON
EXECUTIVE SECRETARY

2 72

ANNUAL IMPACT ON PUBLIC AGENCY BUDGETS OF PERCENTAGE INCREASES IN EMPLOYER CONTRIBUTION RATES TO THE RETIREMENT SYSTEM

(For the fiscal year 1971-1972)

STATE AGENCIES	1/4 %	1/2 %	3/4 %	1 %	1-1/4%	1-1/2 %
University of Nevada	$ 41,000	$ 82,000	$123,000	$164,000	$205,000	$ 246,000
Highway Department	36,500	73,000	109,500	146,000	182,500	219,000
Employment Security	8,500	17,000	25,500	34,000	42,500	51,000
Motor Vehicle Dept.	8,000	16,000	24,000	32,000	40,000	48,000
State Prison	5,000	10,000	15,000	20,000	25,000	30,000
Nevada Industrial Comm.	3,000	6,000	9,000	12,000	15,000	18,000
Miscellaneous Agencies	56,000	112,000	168,000	224,000	280,000	336,000
Total State Costs	$158,000	$316,000	$474,000	$632,000	$790,000	$ 948,000
COUNTIES						
Churchill (all agencies)	$ 3,500	$ 7,000	$ 10,500	$ 14,000	$ 17,500	$ 21,000
Clark	45,000	90,000	135,000	180,000	225,000	270,000
Southern Memorial Hosp.	14,000	28,000	42,000	56,000	70,000	84,000
Douglas	2,000	4,000	6,000	8,000	10,000	12,000
Elko	3,500	7,000	10,500	14,000	17,500	21,000
Esmeralda	400	800	1,200	1,600	2,000	2,400
Eureka	500	1,000	1,500	2,000	2,500	3,000
Humboldt	900	1,800	2,700	3,600	4,500	5,400
Humboldt Co. Hospital	900	1,800	2,700	3,600	4,500	5,400
Lander	1,000	2,000	3,000	4,000	5,000	6,000
Lincoln	900	1,800	2,700	3,600	4,500	5,400
Lyon	1,500	3,000	4,500	6,000	7,500	9,000
Mineral	1,600	3,200	4,800	6,400	8,000	9,600
Mt. Grant Hospital	900	1,800	2,700	3,600	4,500	5,400
Nye	2,200	4,400	6,600	8,800	11,000	13,200
Nye County Hospital	500	1,000	1,500	2,000	2,500	3,000
Ormsby (incl. Hospital)	2,000	4,000	6,000	8,000	10,000	12,000
Pershing	600	1,200	1,800	2,400	3,000	3,600
Pershing Hospital	500	1,000	1,500	2,000	2,500	3,000
Storey	300	600	900	1,200	1,500	1,800
Washoe (Incl. Hospital)	30,600	61,200	91,800	122,400	153,000	183,600
White Pine	2,200	4,400	6,600	8,800	11,000	13,200
Total County Costs	$115,500	$231,000	$346,500	$462,000	$577,500	$693,000
Misc. Small Agencies	$ 18,500	$ 37,000	$ 55,500	$ 74,000	$ 92,500	$111,000

12.

2-73

	1/4 %	1/2 %	3/4 %	1 %	1-1/4 %	1-1/2 %
School Districts						
Churchill	$ 4,000	$ 8,000	$ 12,000	$ 16,000	$ 20,000	$ 24,000
Clark	100,000	200,000	300,000	400,000	500,000	600,000
Douglas	3,000	6,000	9,000	12,000	15,000	18,000
Elko	6,500	13,000	19,500	26,000	32,500	39,000
Esmeralda	500	1,000	1,500	2,000	2,500	3,000
Eureka	500	1,000	1,500	2,000	2,500	3,000
Humboldt	2,500	5,000	7,500	10,000	12,500	15,000
Lander	1,000	2,000	3,000	4,000	5,000	6,000
Lincoln	2,000	4,000	6,000	8,000	10,000	12,000
Lyon	3,500	7,000	10,500	14,000	17,500	21,000
Mineral	3,000	6,000	9,000	12,000	15,000	18,000
Nye	2,500	5,000	7,500	10,000	12,500	15,000
Ormsby	5,500	11,000	16,500	22,000	27,500	33,000
Pershing	1,000	2,000	3,000	4,000	5,000	6,000
Storey	500	1,000	1,500	2,000	2,500	3,000
Washoe	43,500	87,000	130,500	174,000	217,500	261,000
White Pine	4,500	9,000	13,500	18,000	22,500	27,000
Total Cost to Schools	$184,000	$368,000	$552,000	$736,000	$920,000	$1,104,000

Cities						
Boulder	$ 1,600	$ 3,200	$ 4,800	$ 6,400	$ 8,000	$ 9,600
Caliente	200	400	600	800	1,000	1,200
Carlin	400	800	1,200	1,600	2,000	2,400
Carson	3,000	6,000	9,000	12,000	15,000	18,000
Elko	1,500	3,000	4,500	6,000	7,500	9,000
Ely	600	1,200	1,800	2,400	3,000	3,600
Fallon	900	1,800	2,700	3,600	4,500	5,400
Gabbs	100	200	300	400	500	600
Henderson	3,000	6,000	9,000	12,000	15,000	18,000
Las Vegas,	34,500	69,000	103,500	138,000	172,500	207,000
North Las Vegas	7,500	15,000	22,500	30,000	37,500	45,000
Reno	18,000	36,000	54,000	72,000	90,000	108,000
Sparks	5,000	10,000	15,000	20,000	25,000	30,000
Wells	300	600	900	1,200	1,500	1,800
Winnemucca	600	1,200	1,800	2,400	3,000	3,600
Yerington	300	600	900	1,200	1,500	1,800
Total Cost to Cities	$ 77,500	$155,000	$232,500	$310,000	$387,500	$465,000

TOTAL COST TO 80 REPORTING AGENCIES FOR THE FISCAL YEAR 1971-1972 (Projected for growth):

An increase in contribution rate of:

1/4 % =	$ 550,000
1/2	1,100,000
3/4	1,650,000
1	2,200,000
1-1/4	2,750,000
1-1/2	3,300,000
1-3/4	3,850,000
2	4,400,000

PUBLIC EMPLOYEES RETIREMENT FUND
Statement of Receipts, Disbursements and Balances

For the period commencing July 1, 1970 and terminating December 31, 1970

Balance, June 30, 1970:			
Cash		$ 560,551.62	
Advance to Revolving Fund		750,000.00	$ 1,310,551.62
Receipts:			
Contributions:			
Retirement Fund - Employers	$ 5,070,844.09		
Retirement Fund - Employees	4,897,215.84		
Post Retirement Fund - Employers	760,629.31 A		
Post Retirement Fund - Employees	735,034.97 A		
Survivors Fund - Employers	253,561.17 B		
Survivors Fund - Employees	248,028.96 B		
Withdrawn Contributions Repaid	95,966.81	$12,061,281.15	
Redemption of Bonds and Notes	$ 8,787,790.21	$ 8,787,790.21	
Income Received:			
Investments - Retirement Fund	$ 3,194,399.53		
Investments - Post Retirement Fund	.00		
Investments - Survivors Fund	.00		
Withdrawn Contributions	$ 22,274.44	$ 3,216,673.97	
Total Receipts			$ 24,065,745.33
			$ 25,376,296.95
Disbursements:			
Refunds:			
To Terminated Employees -			
Retirement Fund	$1,211,265.33		
Post Retirement Fund	95,664.57		
Survivors Fund	85,523.00	$ 1,392,452.90	
To Employers -			
Retirement Fund	$ 1,643.31		
Post Retirement Fund	295.37		
Survivors Fund	594.12	$ 2,532.80	
Because of Death -			
Retirement Fund	$ 48,405.70		
Post Retirement Fund	3,519.16		
Survivors Fund	3,757.43	$ 55,682.29	
Retirement Allowances:			
Unmodified	$2,132,639.21		
Option 2	372,535.62		
Option 3	391,205.44		
Option 4	4,339.78		
Option 5	27,913.63		
Disability	123,338.69	$ 3,051,972.37	
Survivors Benefits		$ 129,206.54 - B	
Post Retirement Benefits		$ 212,169.20 - A	
Purchase of Bonds and Notes		$18,699,816.96	
Total Disbursements:			$23,543,833.06
Balance:			$ 1,832,463.89
			$ 25,376,296.95

* Comprised of:

Cash, 12/31/70	$ 1,082,463.89
Advance to Revolving Fund	750,000.00
	$ 1,832,463.89

PUB[illegible] EMPLOYEES RETIREMENT FUND

Statement of Resources and Liabilities

At December 31, 1970
(Current Actuarial Reserve Basis)

Resources:

Cash	$ 1,082,463.89		
Advance to Revolving Fund	750,000.00		
Total Cash			$ 1,832,463.89
Investments at Book Value:			
Bonds Corporate	$ 72,756,728.05		
Bonds Municipal	3,516,137.60		
Stocks	27,152,011.41		
Investment Expense	73,100.24	$ 103,497,997.30	
U.S. Government Obligations	$ 22,725,869.03		
U.S. Government Insured Mortgages	10,914,256.89	$ 33,640,125.92	
Total Investments			$ 137,138,103.22
Total Resources:			$ 138,970,567.11
Current Employer Contribution Imbalance			$ 22,485,651.64
			$ 161,456,218.75

Liabilities:

Active Employees Accumulated Contributions	$ 51,396,944.99
Inactive Employees Accumulated Contributions	442,218.03
Withdrawn Contributions, partially repaid	72,477.43
Reserve for Benefit Payments to Retired Members	? 48,355,264.45
Reserve for Post Retirement Annual Increases	9,286,673.34
Employers Equivalent Contributions	51,911,640.54
	$ 161,456,218.75

SUMMARY OF INVESTMENT TRANSACTIONS

Investments at Book Value, Total June 30, 1970		$ 127,226,076.47
Purchases, at cost	$ 18,471,773.85	
Less Redemptions	(8,368,497.71)	
Less Amortization of Accrued Interest, Premium and Discount	(191,249.39)	
Net change during period		$ 9,912,026.75
Investments at Book Value, 12/31/70		$ 137,138,103.22

Death and injury continue to plague fire fighters in all parts of the United States and Canada as the tragic toll of those killed in the line of duty rose to an all-time record high in 1969. The 11th Annual IAFF Death and Injury Survey shows 104 fire fighters died in the line of duty last year.

For several years mining and quarrying workers had the most deaths of any group with 100 reported for each 100,000 workers in 1959. The figure is still 100 for each 100,000. Now this dreadful distinction is held by fire fighters.

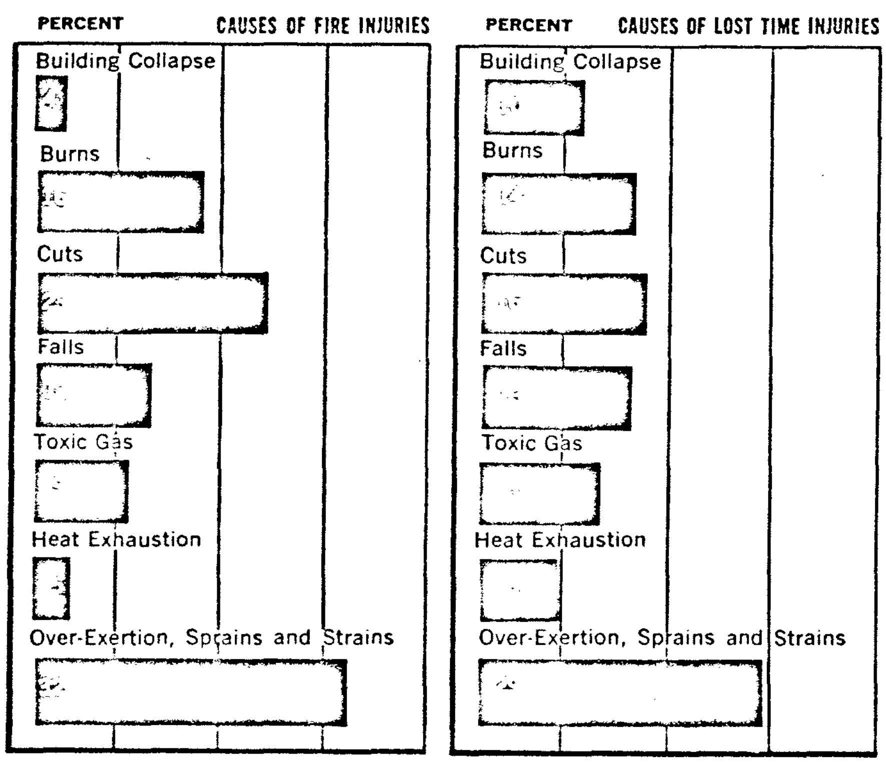
The IAFF Survey also reports that 37 out of every 100 fire fighters were injured last year. These injuries included those sustained from over-exertion, sprains and strains, accounting for 32 percent of the total, as well as burns, falls, cuts, toxic gas and building collapse.

There were 162 fire fighters deaths reported from occupational diseases, with diseases of the heart leading with 117.

A total of 544 fire fighters left their departments because of physical impairment from occupational diseases and on-duty injuries.

These figures are minimum ones because in many departments detailed records are not kept and the figures requested could not be furnished.

MOST HAZARDOUS OCCUPATION



DEATHS FROM OCCUPATIONAL DISEASES

Heart	117
Lungs	23
Other	22
TOTAL	162

2 77

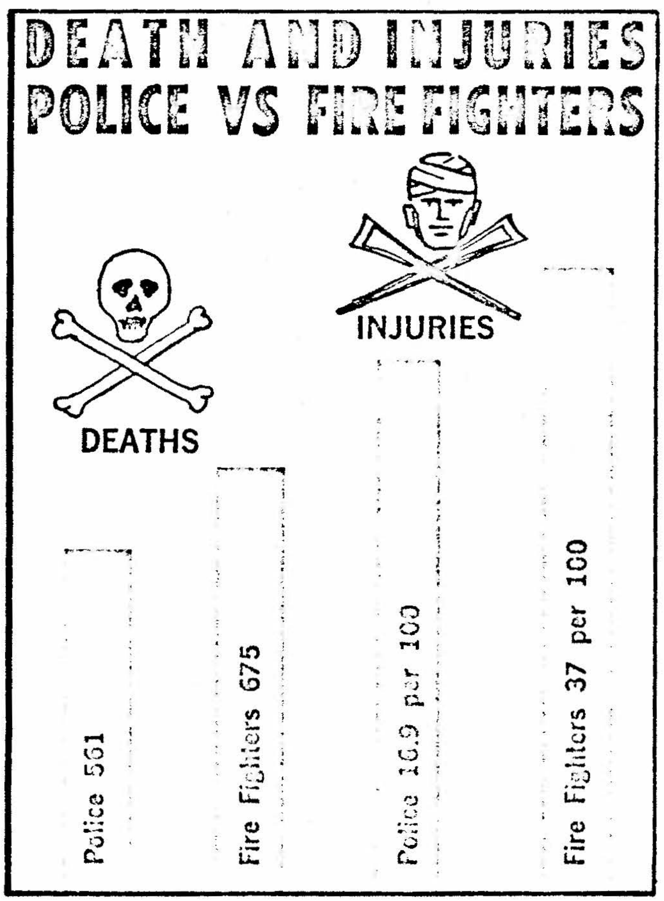
VIOLENCE IN 1960'S ADDS NEW HAZARDS FOR FIRE FIGHTERS

The decade of the Sixties produced new hazards for fire fighters and deaths and injuries continued to increase. From 1960 to 1969,675 fire fighters died protecting the lives of people and their property. In 1969 alone there were 104 deaths and 37,301 injuries.

Civil disorders in recent years have extracted a growing toll among fire fighters. Two fire fighters were killed in the Detroit riots. Another was killed in Watts, and still another killed in Newark. From 1967 to 1969, over 600 fire fighters were injured during civil disorders.

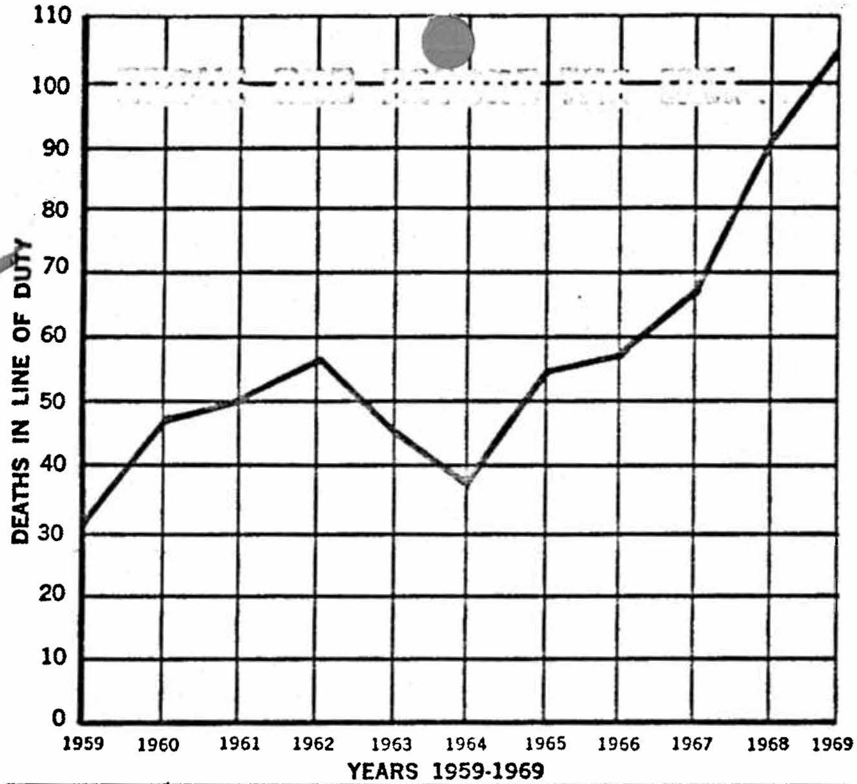
At its worst, the harassment of fire fighters approaches guerrilla war. Rocks and bottles are commonplace. Molotov cocktails have been thrown at trucks. Windshields have been shattered by sniper's bullets. Fire fighters entering a burning building have had to dodge heavy objects hurled from roof tops. Arsonists lure fire fighters out of position with false alarms before applying their torches, and then set booby-traps, loosen fire escapes, weaken stairs and sheets of cardboard are sometimes placed over holes in floors. They have been lured up dead-end alleys to fight fires started in trash and deserted automobiles and then met with a fusillade of rocks and bottles.

Thus, an already hazardous job has become more hazardous.



1960-69 1969

IAFF Dept. of Research & Dept. of Justice



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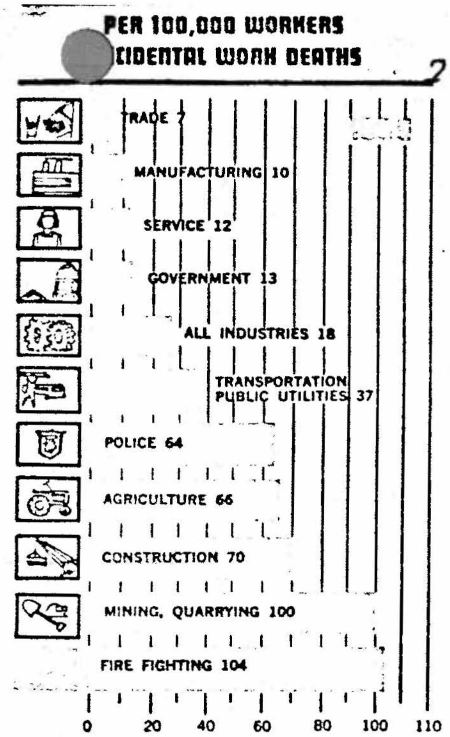

Sources: National Safety Council; Federal Bureau of Investigation; IAFF Research and Education Department.

INJURY RATES

		Injury-Severity Rates [2]	Average Days Charged Per Injury [1] Permanent Partial	Temporary Total	All Disabling Injuries
1960	Police	2,503	N/A*	N/A*	N/A*
	Fire Fighters	2,993	N/A*	N/A*	N/A*
1961	Police	2,314	N/A*	N/A*	N/A*
	Fire Fighters	3,004	N/A*	N/A*	N/A*
1962	Police	2,006	N/A*	N/A*	N/A*
	Fire Fighters	2,501	N/A*	N/A*	N/A*
1963	Police	2,020	957	15	60
	Fire Fighters	3,848	1,297	19	109
1964	Police	2,767	971	16	71
	Fire Fighters	3,218	1,124	20	110
1965	Police	2,184	932	14	51
	Fire Fighters	2,745	1,245	21	87
1966	Police	2,805	N/A*	N/A*	63
	Fire Fighters	2,413	N/A*	N/A*	78
1967	Police	4,328	N/A*	N/A*	116
	Fire Fighters	2,983	N/A*	N/A*	74
1968	Police	2,722	1,066	18	75
	Fire Fighters	3,287	1,273	17	75

N/A*—NOT AVAILABLE

[1] The *average days charged per injury* includes scheduled charges for deaths and permanent impairments plus the number of full calendar days during which the injured persons were not able to work because of temporary-total disabilities. This sum is divided by the number of disabling injuries.

[2] The *severity rate* is the number of days of disability resulting from disabling work injuries per million employee-hours of exposure.

Source: Bureau of Labor Statistics, U.S. Department of Labor

INJURY RATES

The Bureau of Labor Statistics issues figures on injury rates for many industries and for government employees, including police and fire fighters. In the categories of average days charged per injury and percent of disabling injuries resulting in death, permanent impairment and temporary total disability, fire fighters experienced longer disabilities and incurred more injuries than police, except during the years 1966 and 1967. Figures for 1969 were not available from the Bureau as we went to press.

with the

FEDERAL FIRE FIGHTERS

by Al Davis, Staff Representative, and [illegible] Vice President, 11th District

IAFF Testifies On Hazardous Nature Of Fire Fighting at Retirement Hearing

In testimony before the House Post Office and Civil Service Subcommittee on Retirement, Insurance and Health Benefits, the IAFF testified that fire fighting is now considered the most hazardous occupation in the world by the U.S. Department of Labor. (See Death and Injury Survey, page 6).

Legislative Representative Jack Waller and Federal Representative Al Davis told members of the subcommittee that fire fighters at federal installations are required to daily handle deadly chemicals and radioactive materials in addition to performing their fire fighting duties.

The two were testifying on behalf of S.578 and H.R. 422 that would enable federal fire fighters to retire at 50 after 20 years of service—in contrast with retirement at 55 after 30 years for most other federal employees. [illegible]

In [illegible] to convince the committee that fire fighting is more hazardous than any of the other 14 groupings of federal agency employees already receiving hazardous duty retirement benefits, it was pointed out that there were 104 occupational [illegible] per [illegible] fire fighters in 1969 while the number was only [illegible] federal government workers. Employees of the 14 groups of Federal employees that now come under hazardous duty retirement benefits include FBI agents, U. S. Marshals, Border Patrol employees, U.S. Custom Service and the Immigration and Naturalization Service.

It was also pointed out that a fire fighter is constantly exposed to carbon monoxide and other poisonous gases in the course of fighting fires. This, medical experts have proven, does permanent damage to the heart and vascular system.

In their testimony, Reps. Davis and Waller also refuted a previous claim by Andrew Ruddick of the Civil Service Commision that, if the early retirement bill for federal fire fighters is passed, it would cost in excess of $550,000 for the estimated 200 fire fighters who would retire annually.

"Under the present retirement plan," Davis testified, "using a G.S. 5 fire fighter with a three year average salary of $10,000, after 20 years service he would retire at $3,625 per year. The proposed legislation would give the same fire fighter $4,000 per year retirement or an increase of $375 per year. Assuming 200 retire annually, the cost would then be $75,000 instead of $550,000 as previously stated."

Also testifying on behalf of the S.578 and H.R. 422 were John McCart, Operations Director of the Government Employees Council (AFL-CIO).

with the
FEDERAL
FIRE FIGHTERS

By Al Davis, Staff Representative, and Nick Herbst, Vice President, 16th District

IAFF Testifies On Hazardous Nature Of Fire Fighting at Retirement Hearing

In testimony before the House Post Office and Civil Service Subcommittee on Retirements, Insurance and Health Benefits, the IAFF testified that fire fighting is now considered the most hazardous occupation in the world by the U.S. Department of Labor. (See Death and Injury Survey, page 6).

Legislative Representative Jack Waller and Federal Representative Al Davis told members of the subcommittee that firefighters at federal installations are required to daily handle deadly chemicals and radioactive materials in addition to performing their fire fighting duties.

The two were testifying on behalf of S.578 and H.R. 422 that would enable federal fire fighters to retire at 50 after 20 years of service—as contrasted with retirement at 55 after 30 years of service for most other federal employees. (See page 18).

In an effort to convince the committee that fire fighting is more hazardous than any of the other 14 groupings of federal agency employees already receiving hazardous duty retirement benefits, it was pointed out that there were 104 accidental work deaths per 100,000 fire fighters in 1969 while the number was only 12 for 100,000 government workers. Employees of the 14 groups of Federal employees that now come under hazardous duty retirement benefits include FBI agents, U.S. Marshals, Border Patrol employees, U.S. Custom Service and the Immigration and Naturalization Service.

It was also pointed out that a fire fighter is constantly exposed to carbon monoxide and other poisonous gases in the course of fighting fires. This, medical experts have proven, does permanent damage to the heart and vascular system.

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January 6, 1971

Mr. Donald Anderson
Executive Secretary
Public Employees' Retirement System
State of Nevada
P. O. Box 637
Carson City, Nevada 89701

Dear Mr. Anderson:

This is in reply to your letter of November 19, 1970 requesting us to recap or reestablish the cost for several proposals that may be considered under the Retirement System. All cost estimates have been based on the valuation of the State Retirement System as of June 30, 1968.

The following paragraphs in answer to your letter are numbered the same as the questions in your November 19, 1970 letter:

1. This question had to do with reducing full vesting from twenty years to fifteen years, and reduce partial vesting from fifteen years to ten years. There is little we can add to our previous statements in regard to this item. It is not possible to determine the costs of this reduction of vesting since we have no way of knowing whether anyone would take advantage of it. Since it is being requested, there is someone in the System who will take advantage of it, and some costs will be involved. We believe that an investigation of the experience under the present program should be made prior to any liberalization of benefits in this regard.

2. This question had to do with reducing full retirement age from 60 to 55, that is, by five years. The estimates we have made indicate that an additional contribution by the employer would be required in the amount of 2.05% of payroll along with additional contributions by employees of an equal amount. These contributions are required to fully fund this proposal.

3. This question had to do with our recommendations to completely fund the System or to pay only the interest on the so-called unfunded liability. As previously given to you in our actuarial report, we presented two sets of cost figures depending upon your decision as to whether contributions would be shared equally between the employees and the employer or whether the entire costs would be borne by the employer.

To summarize these figures:

Method #1 - Equal Rates by Employees and Employer

Present Rate	Fully Funded Rate	Interest Only Rate
Employee 6%	Employee 11.68%	Employee 8.19%
Employer 6%	Employer 11.86%	Employer 8.19%

As previously stated, we would strongly recommend that you adopt a rate somewhere between the interest only approach and the fully funded basis.

Since it may present a problem to the State to increase employees' contributions with no increase in benefits, we suggested a set of rates under which the employee's rate of contribution remains at 6% of compensation, while the employer's rate provides the balance of costs:

Method #2 - Unequal Rates

Present Rate	Fully Funded Rate	Interest Only Rate
Employee 6%	Employee 6%	Employee 6%
Employer 6%	Employer 16.66%	Employer 9.98%

We strongly recommend that, depending upon your decision on employees' rates of contribution, the employer adopt at least an interest only basis of contributions.

4. This item had to do with granting 1-1/2% of final average compensation for years served in excess of 30. We have estimated that an additional .67% of payroll each from the employee and the employer would be required to fully fund this additional benefit.

5. This question had to do with retirement of policemen and firemen. It was suggested that we determine the costs for retirement after twenty years of service at any age.

In addition, we were asked to determine the cost of full retirement benefits commencing at age 50 without regard to a service requirement. We previously quoted the estimated cost of retiring with twenty-five (25) years of service and any age. We believe that your request for the "age 50" determination will be no greater than the percentages quoted previously and these have been indicated below in parentheses:

a. If the additional cost is to be divided equally between the employees and the employer, with the provision that the employees would receive a return of contributions upon death or withdrawal, 9.8% (2.5%) of payroll by the employees and by the employer.

2-82

b. If the estimated additional cost is to be borne entirely by the employer, 17.7% (4.6%) of payroll from the employer and nothing from the employees.

c. If the additional cost is to be divided equally between the employees and the employer, with the provision that the employees upon termination or death do not receive a return of their contributions which were in excess of the present contribution of 6% of payroll, this item would amount to 8.85% (2.3%) of payroll from the employer, and 8.85% (2.3%) from the employees.

It should be pointed out that the additional rates of contribution quoted above are based on the assumption that all members will retire at the first qualification. If only a portion of the membership, say 30%, retired when first qualified, the additional rates would be only 30% of those indicated above.

The indicated additional rates also assume that the more liberal retirement qualification would apply to present police and fire members, as well as to future retired members. The effect of this is to incorporate in the above rates a certain amount of deficit. As new entrants are incorporated in the Retirement System, the above additional rates would tend to be reduced. It should be pointed out again, however, that none of the prominent California retirement systems provide as liberal a benefit as 50% of final compensation after twenty years of service.

6. This question had to do with increasing the post-retirement benefit from 1-1/2% per year to 3% per year.

Our estimates indicate that the cost of this change would amount to 1.8% of payroll from each of the employees and the employer. This added contribution would fully fund the increased portion of this post-retirement benefit.

7. This item had to do with "immediate disability" for firemen and policemen. We were advised to wait on any cost determination until we were furnished a copy of the precise proposal.

8. This item had to do with the abandonment of Options 4 and 5 after July 1, 1971. As we previously indicated, these two options have been of very little value to your present Retirement System. Perhaps not many members are aware that they exist. In any event, very few members have retired under these options. In our letter of September 16, we have made several proposals pertaining to these benefit provisions. We believe that deleting Options 4 and 5 would not affect the overall Retirement Program adversely. The purpose of these options is to provide an adequate

retirement benefit to older members who may have very young spouses. However, over the years proportionately few members have selected this form of benefit.

We look forward to meeting with you on January 8, 1971 to discuss further these provisions.

Sincerely,

COATES, HERFURTH & ENGLAND
Consulting Actuaries

By Sanford M. Jacobson
Sanford M. Jacobson

SMJ/sap

STATE OF NEVADA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM
COMMENTS ON THE AUDIT REPORT
FOR THE FISCAL YEARS ENDED JUNE 30, 1967, 1968, AND 1969

GENERAL

The Public Employees' Retirement System was created by Chapter 181, Statutes of Nevada, 1947.

The governing authority of the System is a five-member board appointed by the governor. Each board member serves four years.

The Retirement Board is also responsible for the administration of the Legislators' Retirement Fund, for which a separate report has been issued.

The membership of the System at June 30, 1969, as shown by the records maintained by the System, was as follows:

Employment Status	Number of Members
State of Nevada	5,790
Political Subdivisions	15,805
Total Membership - June 30, 1969	21,595

The Public Employees' Retirement System paid benefits to the following number of retired and disabled members and survivors of deceased members:

Type of Benefit	Number of Recipients
Retirement	1,683
Survivors	216
Disability	81
Total Number of Recipients	1,980

FINANCIAL PLAN

The Fifth Actuarial Report of the Public Employees' Retirement System, as of June 30, 1968, was included in the Eleventh Biennial Report of the Public Employees' Retirement Board. Some of the conclusions and recommendations made in that actuarial report are as follows:

1. The unfunded liability of the Retirement System is $117,051,530.
2. The aforementioned unfunded liability will continue to increase if the current contribution rates are maintained at 6%. The actuaries stated that:

   "We believe that based on the continuation of the current 6 percent rate of contribution, together with the continuation of the present level of benefits, the System will arrive at a 'Terminal Funding' condition.

   "Under this condition, the past employee contributions made will be needed to provide benefits promised to present retired members. In other words, at such time that this condition is reached, were all active members to terminate, there would be insufficient funds to provide for the return of the full employee contributions.

   "Conversely, were the return of employee contributions made in full, then this of necessity would be at the detriment of present retired persons, in that it would not be possible to provide them with benefits promised for life, but rather for only some lesser period of time."
3. The actuaries have recommended that the Retirement Board increase the contribution rates to provide sufficient funds to at least arrest the accruing interest on the unfunded liability. Two methods to increase the contribution rates have been suggested by the actuaries as set forth in the schedule below.

Actuarial Method	Percentage Differential	
	Employee	Employer
Method No. 1	2.19%	2.19%
Method No. 2	0.00%	3.98%

2.86

RECOMMENDATION

We recommend that the legislature consider funding the Public Employees' Retirement Fund in accordance with an acceptable actuarial method.

26.

INVESTMENTS

The following schedule sets forth the amounts and percentages of investments held as reported by the System at June 30, 1969:

Type of Investment	Amount Held	Percentage Held
Corporate Bonds	$ 64,139,901.49	58.82%
Common Stock	15,389,607.65	14.12
United States Treasury Obligations	14,883,771.80	13.64
United States Government Insured Mortgages	10,924,526.57	10.02
Municipal Bonds	3,703,660.31	3.40
Total Investments - June 30, 1969	$109,041,467.82	100.00%

Most of the securities are valued at par. Premiums and discounts are normally amortized on an accelerated basis. This practice is not in accordance with generally accepted accounting principles.

INTEREST INCOME LOST

Some of the reasons the Retirement Fund has lost interest income are:

1. Cash is allowed to remain on deposit with the State Treasurer instead of being invested for the benefit of the Fund. Below is a schedule of the cash on deposit with the State Treasurer at the end of each month for the fiscal year ended June 30, 1969:

Month		Uninvested Cash at End of Month
July	1968	$2,323,256.33
August		1,376,227.20
September		1,875,514.56
October		1,565,312.48
November		1,831,848.56
December		1,072,902.91
January	1969	446,928.20
February		287,013.68
March		1,278,615.22
April		1,677,942.35
May		647,836.96
June		292,906.14

27.

As indicated in the schedule below, the Retirement Fund lost interest income computed at five percent per annum on the uninvested cash in excess of a $50,000 minimum balance for the fiscal year ended June 30, 1969. We did not prepare similar schedules for the other two fiscal years ended June 30, 1967 and June 30, 1968. 2-88

Month		Computed Interest Lost
July	1968	$ 8,305.63
August		7,312.24
September		6,185.14
October		8,435.78
November		6,537.64
December		6,005.94
January	1969	6,210.21
February		2,440.52
March		3,038.52
April		6,335.29
May		6,628.33
June		5,118.18
Total Interest Lost		$72,553.42

2. Investment and contribution receipts are not always deposited immediately. The schedule below indicates the amount of interest lost, computed at five percent, from delays in depositing cash receipts for the four months only that we reviewed:

Month Reviewed for Audit		Total Deposits (Note)	Computed Interest Lost
January	1968	$ 358,429.99	$ 227.78
April	1969	688,246.37	830.93
May	1969	873,870.30	741.96
June	1969	738,635.93	624.42
Totals		$2,659,182.59	$2,425.09

Note: Includes only selected individual amounts in excess of $10,000.00.

28.

3. Accrual accounts for income are not maintained. Control schedules for the maturity of investments are not maintained. This results in a loss of investment income from money that should have been collected and invested at an earlier date.

   We examined the transactions for two months out of the thirty-six month period covered by our audit to determine the amount of interest lost. Our test disclosed that $1,534.78 of interest income, computed at five percent, was lost for these two months only.

RECORDING OF TRANSACTIONS

During the course of our audit, we analyzed the investment and interest control accounts, financial statements, investment counsel reports, transaction documents, and correspondence related to investments. Our analysis revealed that the bookkeeping procedures do not provide for different types of investment transactions to be clearly identified in the records. We located examples of the following types of bookkeeping errors:

1. Incorrect recording of dividend receipts;
2. Incorrect recording of gains on sales of securities;
3. Incorrect recording of losses on sales of securities;
4. Incorrect recording of principal receipts;
5. Incorrect recording of security exchanges.

UNIVERSITY OF NEVADA · RENO
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COLLEGE OF BUSINESS
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2-90

March 8, 1971

Mr. Don Anderson, Executive Secretary
Public Employees Retirement Board
P.O. Box 637
Carson City, Nevada 89701

Dear Don:

I should appreciate it if you would send copies of the attached November, 1970, issue of "Economic Leaflets" (Vol. XXIX, No. 11) to Board members. Also, to anyone else, including Government Affairs Committee members, and Actuary Jacobsen. You may even say I suggested that it be sent. The Government Affairs Committee in particular should appreciate it.

Will leave it up to you as to the distribution list.

Sincerely,

Robert C. Weems, Jr.
Dean

eb
Enclosure

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Carter C. Osterbind, Editor

Vol. XXIX, No. 11 COLLEGE OF BUSINESS ADMINISTRATION November, 1970

The Florida Retirement System

WILLIAM M. HOWARD
Professor of Finance and Insurance

Perhaps the greatest single commitment of public funds ever made in Florida resulted from the creation of the Florida Retirement System through the enactment of Chapter 70-112 of the Florida Statutes in the spring of 1970. The legislation created a consolidated retirement system consisting of all existing Florida retirement systems except the retirement system for Supreme Court Justices, District Courts of Appeal Judges, and Circuit Judges. The cost of the resulting system depends partly on the number of state employees who elect to participate in the new system. Because of its rather generous provisions, it seems likely that most will make this election.

According to the most recent actuarial report on the state retirement systems dated March, 1967, the four principal retirement systems—teachers, state and county, judicial, and highway patrol—were underfunded by $676 million. Because of the more liberal benefits provided through the newly created Florida Retirement System, this unfunded liability—an obligation of the state of Florida if pensions are ultimately to be paid—is estimated (by the author, a member of the American Academy of Actuaries) to increase immediately by $500 million to $1,000 million. The determination of liabilities and costs depends on the method of calculation and the assumptions made with regard to interest to be earned on invested funds, rates of termination of employment, rates of mortality, and future changes in price levels. This estimate is made on a basis reasonably consistent with the 1967 actuarial valuation and the assumption that the price level will continue to increase at the rate of 3 percent or more per year. The annually accruing costs of retirement systems to the state of Florida, which was $26 million in 1967, may well be doubled. Allowing for increases in 1967, 1968, and 1969, the annually accruing cost to the state may now be in the range of $60 million to $70 million. This accruing cost, together with interest on the unfunded liabilities, could result in a total current annual cost to the state of Florida in the range of $140 million per year.

It is difficult for most people who do not work with retirement systems regularly to evaluate the significance of their liabilities and costs. In the early years of most retirement systems, and during periods of increasing payrolls, moderate rates of contribution to the retirement fund will exceed the benefits currently being paid. A false sense of security may develop because of the accumulation of an increasing fund arising from the current excess of contribution over benefits paid. The existence of a large and growing fund in the early years of a system does not necessarily mean that the system is sound. If the value of future pensions to be paid through the system exceed the value of future contributions and present assets, the time will inevitably come when there will not be sufficient funds on hand to pay pensions as they become due, unless appropriate action is taken in time to reduce the benefits provided through the system or to increase contributions to the fund.

In the fiscal year 1967-68, total state contributions to the Teachers Retirement System came to $28 million, a figure considerably below current requirements at that time (taking into account currently accruing costs and amortization of unfunded liabilities). Under the new Florida Retirement System, state contributions as a percentage of payroll are actually reduced. The time when the state retirement funds will be exhausted on the basis of present rates of funding is difficult to estimate and is surely many years in the future. Nevertheless, these costs are real and if not met currently will be a burden to future taxpayers.

EXISTING RETIREMENT SYSTEMS

The state of Florida has maintained several separate retirement systems in past years. Since members of these systems have the option of transferring to the newly created Florida Retirement System, though they are not required to do so, and state employees hired after November 30, 1970, must become members of the new system, it seems likely that these existing systems will continue with decreasing membership for a number of years.

State and County Officers and Employees Retirement System.—State and county employees who are not members of the other systems described below are members of this system. It includes members of administrative and

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legislative departments of the state and county governments. An interesting provision exempts employees of a county having a retirement system if they participate in that system. Duval County is the only county with such a retirement system, and no new members will enter that system. In 1966, 122,000 active employees were members of the State and County Officers and Employees Retirement System with total annual earnings of $527 million. There were 7,245 retired members with total annual pensions of nearly $9 million.

Teachers Retirement System.—The Teachers Retirement System covers most of the faculties and staffs of public primary schools, high schools, junior colleges, and state universities, though a few of these people are members of the State and County Officers and Employees Retirement System. In 1970, there were 93,000 active members of the Teachers Retirement System with annual earnings of $781 million. There were 8,125 retired members with annual pensions of nearly $25 million. Although there are more members of the State and County Officers and Employees Retirement System, the liabilities of the Teachers Retirement System are considerably greater.

Highway Patrol Retirement System.—The Highway Patrol Retirement System covers members of the State Highway Patrol. In 1966 there were 700 active members of this retirement system with total annual earnings of $4,400 thousand. There were 40 retired members with total annual pensions of $124 thousand.

Retirement System for Supreme Court Justices, District Courts of Appeal Judges, and Circuit Judges.—This retirement system is specifically excluded in the consolidation of other systems into the Florida Retirement System. In 1966, there were 146 active members of this system with total annual earnings of $3 million. There were 22 retired members with total annual pensions of $183 thousand. This system provides the most liberal benefits and requires the greatest employee contributions of all of the state retirement systems in Florida.

Other Retirement Systems.—There is a retirement system providing pensions for widows of Confederate soldiers, with fewer than twenty widows still drawing pensions from the system. Members of the Florida National Guard became members of a Federal Civil Service Retirement System as of January 1, 1969, though a few of these people continued to be members of the State and County Officers and Employees Retirement System.

In addition to the retirement systems briefly described above, the state of Florida has encouraged the establishment of retirement systems for firemen and policemen on a local basis through the enactment of Chapters 175 and 185 of the Florida Statutes. Under the terms of these statutes, certain revenues from the tax on insurance premiums collected by the state are remitted to retirement funds, that meet certain specified requirements, for firemen and policemen. These systems are established and administered locally, each having its own board of trustees which may include the mayor, the fire chief or chief of police, one or two other employees, and a prominent member of the community. The systems are supervised by the Director of the Municipal Fire and Police Pension Trust Funds, a member of the staff of the Florida State Treasurer. As of July 1, 1970, there were 106 local retirement systems for firemen and 114 local retirement systems for policemen qualifying for state funds under this arrangement. The state distributed a total of $4 million to these funds in 1970.

While differences in levels of benefits provided through the various systems can create dissension among groups of state employees and can give the various groups some reason for urging improvements in their system, the benefits provided through even the least generous system are greater than typical retirement plans provided for employees in business and industry generally. Perhaps a reasonably typical type of formula for determining an employee's pension upon retirement after long service is a monthly pension equal to 1 percent of the employee's average earnings multiplied by the number of years of service, with an employee becoming eligible to retire at age 65. In addition to this type of pension, an employee would typically be entitled to retirement benefits provided through the Federal Social Security System.

Pensions provided through all of the Florida retirement systems in existence before 1970 are greater than the typical type of pension benefit described above. However, only employees who are members of Division B of the State and County Officers and Employees Retirement System participate in the Federal Social Security System as a condition of employment. The absence of Social Security benefits, and the requirement that employees contribute a percentage of their pay to their retirement system may justify the level of benefits.

The liberality of the new Florida Retirement System is illustrated in Table 1, which compares Florida's new system as of 1970 with information for certain other states for 1963, the most recent information found. Members of the Florida Retirement System participate in the Federal Social Security System as do members of the systems illustrated for New Jersey and Pennsylvania. Retirement systems are usually designed to provide reasonably adequate retirement incomes to members through a combination of pension and Social Security payments. The New Jersey system, for example, accomplishes this by providing a pension at normal retirement age of 1.66 percent of average earnings for each year of service *less* part of the Social Security pension. The Florida Retirement System provides approximately the same pension accrual rate without a reduction equal to part of the Social Security pension. The accrual rate gives the pension as a percentage of average earnings for each year of credited service. For example, under the Florida Retirement System an employee may receive a pension at normal retirement age of 1.6 percent of average earnings for each year of service.

TABLE 1.--PENSION ACCRUAL RATES AND SOCIAL SECURITY COVERAGE FOR MEMBERS OF SPECIFIED STATE RETIREMENT SYSTEMS: 1963

State	Pension Accrual Rate (percent)	Social Security Coverage
[a]Florida	1.60	Yes
New Jersey	[b]1.667	Yes
Pennsylvania	[b]2.0	Yes
Illinois	1.667	No
Ohio	1.65	No

[a]Information for Florida is for 1970

[b]Less Social Security offset

Source: Chapter 70-112, Florida Statutes, and Benefits Provided by Major Public Employee Retirement Systems, Martin E. Segal Company, New York, 1963.

Members of the Illinois and Ohio systems illustrated do not participate in the Federal Social Security System. It is reasonable to suppose, then, that these systems are intended to provide a reasonably adequate retirement income without Social Security benefits. The pension accrual rate under the Florida system is roughly equal to the pension accrual rates of the Illinois and Ohio systems even though members of the Florida Retirement System participate in

Social Security. It might be said that members of the Florida Retirement System will receive retirement pensions that are reasonably adequate in themselves (by standards generally accepted) and will receive Social Security retirement benefits in addition. It is obvious that such a system must be more expensive than the systems of the other states.

Reasons for Consolidation

There are four apparent reasons for consolidating and modifying Florida's complex retirement system. First, the creation of a single system may simplify administrative problems and reduce administrative expense. This reason is probably more apparent than real. No doubt it is more difficult to administer several retirement systems than a single system. Differences in benefits and in employee contribution rates raise questions of equity among groups of state employees, and create some dissension. On the other hand, diversity of retirement systems may be considered an advantage. Different types of retirement systems may be appropriate for various groups of state employees. While some of the pension plans have only a few members, the larger ones are already large enough to yield virtually all of the economies in administration associated with large size.

A second reason for modifying pension plans is to reduce the costs of the more expensive plans by reducing the benefits provided through them to a more moderate level. The *Report on Actuarial Valuation of the Pension Systems* indicates the following costs to the state of Florida in 1966, in addition to employee contributions, to support these plans on what would normally be considered a sound basis.

Retirement System	Cost ($000)	Percent of Annual Payroll
Teachers	38,000	10.3
State and County Officers and Employees	20,000	3.9
Supreme Court Judges, District Courts of Appeal Judges, and Circuit Judges	700	21.3
Highway Patrol	500	11.9
Total	59,200	6.6

A cost of 5 percent to 10 percent of payroll is generally considered a reasonable range for retirement plan costs in business and industry, with 10 percent clearly on the high side, though there are some retirement systems for which the cost to the employer is a bit higher. The effect of the enactment of Chapter 70-112 of the Florida Statutes on retirement costs is discussed more fully below.

A third reason for changing the Florida retirement systems is to put state employees under the Federal Social Security System. This reason is related to the presumed desirability of reducing over-all costs. If the benefits provided through Florida's retirement systems could be reduced by an amount approximately equal to benefits provided through the Federal Social Security System, some of the burden of cost could, in effect, be shifted to the federal government, while the status of employees would be relatively unchanged. Furthermore, the security of pensions and other benefits provided through the Federal Social Security System is surely greater than the security of benefits provided through any state system.

The fourth reason for changing Florida's state retirement systems is to allow employees of Florida cities to participate in a state-wide system. All of the very large Florida cities, most cities of medium size, and several rather small cities have retirement systems for their employees. A state-wide system would allow city employees to move from one city to another, or into state or county employment, without losing pension credit. This is a particularly important consideration for city managers, most of whom move a number of times during their careers. A state-wide system may also simplify the problems of providing pension benefits for employees of smaller cities, and might—but just might not—provide greater assurance that funds will be on hand to pay pensions as they become due.

Problems presented by the various retirement systems for employees of the state of Florida are by no means unique. Retirement systems in several other states have been studied and revised in recent years. It is safe to say that the recent increase in price levels has, in itself, created dislocations that provide reason for review of all state and local retirement systems.

Application of the Florida Retirement System

Members of the faculties and staff of public elementary and secondary schools, public junior colleges, and public universities in Florida have the option of remaining under their present retirement system or changing to the new Florida Retirement System. This election was to be made in October, 1970.

The estimated monthly pension from the two retirement systems (Florida Retirement System and Teachers Retirement System) for an employee who retires with 30 years' service at age 62 is shown in the following table. For these calculations, it is assumed that the employee has had average earnings of $10,000 during his final 10 years of employment and that his salary has increased each of these years by 8 percent. If annual salary increases during the last ten years are 5 percent, the monthly pension under the Florida Retirement System would be reduced by 3.5 percent. The monthly pension calculated for the Florida Retirement System for 1972, 1982, and 1992 assumes that the member has prior credit under the Teachers Retirement System.

Year of Retirement	Monthly Retirement Pension: Teachers Retirement System (Plan E)	Florida Retirement System
1972	$500	$580
1982	$500	$542
1992	$500	$503
2002	$500	$468

Because employees may retain pension credit at the rate of 2 percent of earnings for each year of service to November 30, 1970, under the Teachers Retirement System, and the 1.6 percent rate applies only to future service under the Florida Retirement System, teachers who retire within the next few years lose very little as a result of the difference in the pension accrual rate. Younger employees, who will accrue most of their service credit under the Florida Retirement System, have most to lose by this change. However, if their salaries increase materially during the last 10 years before they retire, the advantage of having their pensions based on the average of the last 5 years, rather than the average of the last 10, could largely offset the difference in the pension accrual rate. Social Security payments after retirement will surely be greater than any reduction in pension payments from the state that could be realistically expected. If an employee decides to retire early at age 60 rather than at the normal retirement age of 62, there would be a 10 percent reduction in pension credit earned. Even so, under the assumption stated, the employee would be better off under the Florida Retirement System. If a younger employee anticipates retirement before age 62 and if he expects the prices to level off or decline, he might conceivably consider the Teachers Retirement System the better choice. It is rather difficult to identify employees who would not be better off under the Florida Retirement System than under the Teachers Retirement System.

Employees who are close to retirement are given the greatest benefit through the change in retirement systems because they retain the advantage of the 2 percent annual pension accrual rate for service to November 30, 1970, are given the advantage of having their pensions based on average earnings during the best 5 years rather than the best 10, and their pensions will increase after age 65 if the price level increases, subject to a maximum increase of 3 percent in any one year. (Pensions of all retired Florida employees will increase with the price level, subject to the 3 percent limitation, after age 65, and this is not an advantage exclusively of employees who are now near retirement.) The value of the increase in the pension for an employee who retires in 1972 under the conditions stated, as a result of the opportunity to change to the Florida Retirement System, is startling. Simply as a result of changing from the Teachers Retirement System to the Florida Retirement System, his pension will increase from $500 per month to $580. The present value (computed on the basis of the 1951 Group Annuity Table and interest at 4 percent) at age 62 of a level pension of $500 per month to a male in average health is $68,000, and for a female is $78,000. The present value at age 62 of a pension starting at $580 per month and increasing at 3 percent per year from age 65 is $101,000 for a male and $116,000 for a female.

You might say that the enactment of Chapter 70-112 amounts to a gift to each of these people of $33,000 and $38,000. Employees with military service that did not interrupt their service as state employees may also receive credit for the service under the Florida Retirement System, but not under the Teachers Retirement System. Four years of military service could increase an employee's pension under the conditions stated above by $50 per month, an amount that would have a present value at age 62 of about $9,000. For this the employee might have to contribute perhaps $1,500 to the pension plan, depending on when he came to work in Florida and his starting salary.

A fairly large number of people close to retirement age in Florida's educational system earn $20,000 per year and more, and a number of them may now claim credit for military service. For these people, enactment of Chapter 70-112 of the Florida Statutes is a real bonanza.

Cost to the State

The creation of the Florida Retirement System achieved a number of its apparent purposes. Although several retirement systems currently in existence will continue for some years, most of the state employees will soon be members of a single system, and administrative problems may be reduced. A high, and increasing, percentage of state employees will participate in the Federal Social Security System, thereby securing for these employees and their families the benefits of this system and shifting some costs from the state government to the federal government.

Cities will have the opportunity to allow their employees to participate in a state system with a number of attendant advantages, though the extent to which cities will take this opportunity cannot now be assessed. It seems likely that it will be quite some time before a high percentage of city employees become members of the Florida Retirement System.

The creation of the Florida Retirement System will surely increase retirement costs to the state. Three aspects of the new system tend to reduce costs and three tend to increase costs. Reduction of the rate at which pension credit accrues to members from 2 percent of earnings for each year of service to 1.6 percent, would, in itself, reduce pension plan costs on account of new members by 20 percent. Since old members retain the higher rate of pension credit for service to November 30, 1970, the over-all reduction in cost is not nearly that great. An increase in the normal retirement age of members of some of the retirement plans from age 60 to age 62 could reduce costs by roughly 16 percent if the age at which employees actually retire is increased by two years. Members who joined the largest of the retirement systems after July 1, 1963, have a normal retirement age of 62, and a large number of employees continue to work after their normal retirement age in any case. Benefits payable to beneficiaries of deceased employees are lower under the new system and are replaced essentially by benefits under the Social Security System. The resulting reduction in the cost of the retirement system is less than 1 percent. The combined effect of these three factors may have reduced pension plan costs by perhaps 20 percent.

Changes in three other provisions more than offset the reduction in costs resulting from the factors discussed above. The change in the earnings base on which retirement benefits are computed from the average of the best 10 of the last 15 years to the highest 5 years probably increases costs by 10 to 20 percent, depending upon future increases in price levels. The provisions for an increase in pensions along with rising prices, subject to a maximum increase of 3 percent per year, will increase the cost of the pension plan by about 30 percent if the price level continues to increase at the rate of 3 percent or more per year. The reduction in the employee contribution rate from 6.25 percent to 4 percent also increases the cost of the pension plan to the state.

These three factors, the change in the earnings base on which pension benefits are calculated, the increase in pensions along with rising price levels, and the reduction in employee contribution rates together with the factors that tend to decrease costs discussed above, probably result in an increase in currently accruing costs of retirement systems to the state by about 50 percent. Unfunded liabilities may be more than doubled.

It appears that the combined costs of the Florida Retirement System and Social Security approach—perhaps exceed—30 percent of payroll. It seems doubtful that many employees, other than those who are close to retirement, would willingly give up 30 percent of their earnings for these benefits. If this is the case, then the state of Florida has established an uneconomical retirement system; one for which accruing costs of retirement benefits are not met by current appropriations but are left as burdens for future taxpayers.

Will future Florida taxpayers be able and willing to bear these burdens? When we contemplate the prosperity of the United States in the past generation and the dynamic growth of the Florida economy, it seems difficult to doubt the capacity of the state to bear almost any future burden. We may not wish to be reminded that other governments have planned retirement systems with imprudent optimism during periods of prosperity and that some of these systems have failed during subsequent periods of depression, with tragic consequences to people who depended on them for their income after their working lives were ended.