RETIREMENT ANALYSIS FOR DOE, JANE

Assuming retirement is at age 60.25

Options available	Your monthly allowance	Your beneficiary's monthly allowance after your death	Your monthly allowance upon the death of your beneficiary
UNMODIFIED ALLOWANCE	$5,092	$1,273	$5,092
Option 2	$4,752	$4,752	$5,092
Option 2W	$4,817	$4,817	$4,817
Option 3	$4,913	$3,093	$5,092
Option 3W	$4,951	$3,112	$4,951
An Option 1 allowance is also available to retirees with a beneficiary. The monthly payment during the retiree's life is slightly less than the unmodified payment (which is reduced by approximately one percent). The beneficiary receives no monthly payments after the death of the retiree, but receives a lump sum payment of the retiree's remaining contributions to P.E.R.S. at time of death. The retiree's contributions last approximately 10 years after retirement.			
Regardless of the option selected, if the retiree dies prior to the beneficiary, the beneficiary receives a lump sum death benefit of $2,000.00			
All amounts shown are per month for life. Beneficiary monthly allowances includes Survivor Continuance of $ 1273			

UNMODIFIED: The indicated monthly amount will be paid to the retiree until the retiree's death. Upon the retiree's death, a survivor will receive 25% of this amount per month until her/his death.

OPTION 2: The indicated monthly amount will be paid to the retiree while both the retiree and beneficiary are alive. If the retiree predeceases the beneficiary, the indicated monthly amount will be paid to the beneficiary until her/his death.* If the beneficiary predeceases the retiree, payment to the retiree will be the <u>Unmodified</u> amount from the time of death of the beneficiary until the death of the retiree.

OPTION 2W: The indicated monthly amount will be paid to the retiree or beneficiary until both are deceased.*

OPTION 3: The indicated monthly amount will be paid to the retiree while both the retiree and beneficiary are alive. If the retiree predeceases the beneficiary, the indicated beneficiary monthly amount will be paid to the beneficiary until her/his death.* If the beneficiary predeceases the retiree, payment to the retiree will be the <u>Unmodified</u> amount until the death of the retiree.

OPTION 3W: The indicated monthly amount will be paid until retiree's death. If the retiree predeceases the beneficiary, then the indicated beneficiary monthly amount will be paid to the beneficiary until her/his death.*

* For information on the distinction between survivor and beneficiary and possible modifications in the indicated amounts, see page 2.

DEFINITION OF SURVIVOR

A survivor is, in priority order -

1. A spouse married to the retiree at least one year prior to retirement. Upon the death of the retiree, the spouse may remarry without loss of any benefits.

2. If there is no spouse, survivor benefits will be paid to natural or adopted children but only until age of 18. That is, age 18 of the youngest child will be the last payment.

3. If none of the above, a qualifying dependent parent will receive the survivor payment until her/his death.

The "survivor" referred to in the above definition is the individual entitled to the survivor benefit shown on page 1. This survivor benefit is 25% of the retiree's benefit under the unmodified option, and is paid in priority order to a spouse (married at least one year before retirement), child under 18 (until age 18), or parent. The survivor benefit is independent of the retirement option chosen by the retiree. We will refer to a qualifying individual under the definition above as "survivor" rather than "beneficiary".

Under options 2, 2W, 3, and 3W a retiree may name a beneficiary. The monthly payment accruing to this beneficiary is dependent on the age of the retiree and the age of the beneficiary. If this beneficiary is the same as the "survivor" defined above, then the amounts indicated on page 1 (which includes the survivor benefit) will be paid to the beneficiary until her/his death (or age 18 for a minor child).

The beneficiary named under option 2, 2W, 3, and 3W may be anyone at any age, not necessarily a relative. The younger the beneficiary, the smaller the payment under these options will be. However, if the beneficiary is not qualified as a "survivor", the indicated monthly amount will be reduced by the amount of the survivor benefit upon the death of the retiree. That is, 25% of the unmodified amount will be deleted from the monthly payment to the beneficiary.

SELECTION OF RETIREMENT DATE

Faculty planning to retire usually have a choice of retirement date. The date chosen may be any day of the month. After completion of the academic year, any date from, say, June 1 to August 31 could be selected. PERS calculates the retiree's age to the nearest completed 0.25 year. An extra 0.25 year of age will increase monthly retirement payments, if the retiree has not yet reached the maximum 2.5% multiplier (at age 63).

For example, suppose a retiree has 30 years of service, was born on December 15, 1938, and is planning to retiree in Summer, 1999. A retirement on June 1 gives an age of 61.5 and a multiplier of 2.224%. The benefit is 0.0222 times 30 or 66.6% of the monthly salary. Retirement on June 15 gives an age of 61.75 and a multiplier of 2.262%. The benefit is then 67.86% of the monthly salary, about $60 per month additional for a full professor. Note, however, that a half month's retirement payment is lost by choosing June 15 instead of June 1.

A faculty member born in the Spring, e.g., May 10, may be better off to retire as early as possible, say June 1. Waiting until August 10 to complete 0.25 years of age results in the loss of 2.3 retirement checks, a substantial amount.

A potential retiree who has reached age 63 before the end of his/her final semester should select the earliest possible retirement date, since an additional 0.25 year of age does not affect the percentage of monthly salary received.

SOCIAL SECURITY

The analyses reported herein assume that the retiree has been in Social Security throughout the work period. This results in a reduction of $133.00 per month in the final monthly compensation figure used to calculate PERS benefits. It is further assumed that at age 62 or older, sufficient years of Social Security payment have been made to produce maximum Social Security benefits at age 65. If the retirement is at an earlier age than 62, it is assumed that Social Security payment will be slightly reduced. Retirees may obtain exact individual estimates directly from the Social Security Administration.

PRESENT VALUE OF A STREAM OF RETIREMENT PAYMENTS

The present value of a particular retirement stream is defined as the amount of money needed on the day of retirement to generate the payments over the expected lifetime of the individual(s) receiving the payments. Thus, the present value represents the expected worth of the retirement benefits on the day of retirement. FERP income is not included in the present value calculations. Four factors affect this present value - the probability of survival of the retiree through each succeeding year of retirement, the probability of the beneficiary's survival through each succeeding year of retirement, the growth rate for retirement payments, and the discount rate. For the analyses reported herein, 1992-93 U.S. Life Tables were used to calculate probability of survival at each year of age. Separate tables were used for men and women, but no further differentiations (e.g., ethnicity) were made. All retirement payments under PERS grow at a fixed rate of 2% per year. The discount rate (i.e., the interest that could be earned by investing the present value amount in fixed securities) varies from year to year. This rate was assumed to be 7.0% for the current calculations. What this signifies is that future payments to the retiree must be reduced by about 5% (2% growth, but 7% discount rate) per year to obtain their present

Present value may be useful in cases where a former spouse has a claim on a portion of retirement benefits. It provides a dollar amount to use for calculating a "buy out" of the claim at the time of retirement.

THE FERP OPTION

A faculty member under FERP receives the full retirement allowance shown under the various options plus half his/her salary for up to 5 years. "Half annual salary" is misleading because a retired individual pays nothing into PERS or Social Security during FERP period. This is true because of a special agreement between PERS and the Social Security Administration, even though the FERP individual may be below age 62 during all or part of the FERP period. The FERP salary is more like 60% of the annual salary.
Also note that faculty under the quarter system receive 1/3 rather than 1/2 salary for teaching one quarter.

An individual of age 62 or over who chooses the FERP option and also chooses to begin drawing Social Security will be required to repay a portion of Social Security benefits. Between age 62 and 64, one dollar of benefits must be repaid for each two dollars earned over $8640. Currently, at age 65 to 69, one dollar must be repaid for each three dollars earned over $13,500. Beyond age 70, there is no repayment requirement.

DETAILED ANALYSIS INCLUDING FERP AND SOCIAL SECURITY

These are shown for 5 options on pages 6-10. Information is supplied for all possible retirement ages through age 70, with the age at most likely date of retirement highlighted and used for the calculations shown below the table. The simplest comparison of the 5 PERS options is the present value figure for each. If the highest present value is selected, this maximizes income for the retiree and beneficiary together, considering mortality of both. For the retiree alone, the unmodified plan always maximizes income during his/her lifetime.

Option 2W is the most popular option selected by married retirees. Because of the longer life expectancy of women, a retiring married man will usually be better off with Option 2W, rather than Option 2. The reverse may be true for a married woman retiree, especially if she is younger than her husband.

To evaluate whether an option such as 2W is a good financial choice for a married retiree, consider the following alternative. The retiree chooses the unmodified option, then asks an insurance company for the monthly cost of a lifetime annuity for the beneficiary. The payment for the annuity would begin at time of retirement, but the annuity would begin at the life expectancy of the retiree and would make up the difference between 25% of the unmodified amount and the Option 2W amount (with 2% growth per year for each). If the monthly cost for such an annuity is more than the difference between unmodified and Option 2W monthly payments, then Option 2W is desirable.

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LIFE EXPECTANCIES

A table of life expectancies for men and women from age 40 to 70 is included at the end of this analysis. At the typical retirement age of 63 men have a life expectancy o 16.8 years and women 20.7 years.

FERP RULES

A summary of current FERP rules is attached. For more detailed information about FERP, refer to the current MOU between CFA and the CSU.