

**Alabama ERS**

8%

same as ROR

Melanie asked Donald Yancy 9/29

Website has a newsletter titled the Advisor which is published monthly with interesting details

**Alabama TRS**

same as ROR

Melanie asked Donald Yancy 9/29

Website has a newsletter titled the Advisor which is published monthly with interesting details

**Alaska PERS**

Kathy Lea, [kathy.lea@alaska.gov](mailto:kathy.lea@alaska.gov), Pat Shier no longer in role.

The annuities are provided by Empower Retirement Services. We are not able to answer these questions for them. Due to di minimus use of annuity options by members, our board is currently looking at other spend down options.

Alaska's defined contribution plans are all participant directed. Participants who make no investment election are defaulted into the appropriate target date fund depending on their age at entry into the plan. The lump sum distribution depends on which plan the member is participating in and how long they have been participating.

Alaska Supplemental Annuity Plan (SBS-AP): This plan disbursement would include the 6.13% contributed by the participant and the 6.13% contributed by the employer plus or minus gains/losses in the investment the participant chooses.

PERS/TRS Defined Contribution Retirement Plan: This plan disbursement would depend on how many years the participant was employed and contributing. The disbursement would include the participants contributions, plus or minus gains/losses at 100%. The employer contributions, plus or minus gains/losses depends on the following vesting schedule:

Under 2 years	0%
2 or more but less than 3 years	25%
3 or more but less than 4 years	50%
4 or more but less than 5 years	75%
5 or more years	100%

**Alaska TRS**

Same as above

**Arizona SRS**

Calls and emails, no response

**Arkansas PERS**

Left voice message, no response

**Arkansas TRS**

Gail Bolden, Deputy Director

501-682-1517: called 11.13.17

To convert single life annuity to J&S, system uses assumed rate of return on assets. Currently this is 8%, lowering to 7.5% in July.

For lump sum distribution, employee contribution. An interest rate on the employee account is set each year by the Board. This year's rate is 0.5%

**California PERS**

Tara Gallegos

Information Officer | CalPERS Office of Public Affairs | [\(916\) 795-0485](tel:9167950485)

Tara.Gallegos@calpers.ca.gov

When a CalPERS member retires they may elect to have an unmodified allowance paid for their lifetime (based on final compensation, service credit, and benefit factor), or they may select a [retirement option](#) which provides an allowance for a beneficiary (optional settlement benefit, or OSB) upon death of the member. The OSB and the unmodified allowance are required to have the same present values which are based on the actuarial assumptions at retirement date and membership date. If a member joined PERS after 7/1/1982, the interest rate used for the present value calculation is the [discount rate](#) at the time of retirement.

As of December 21, 2016, the CalPERS board adopted a discount rate of 7.00%.

If a member leaves the system and forgoes a monthly benefit, they can elect to receive a return of their employee contributions. These employee contributions earn 6% as long as they remain on deposit in our system.

**California TRS**

Diane M. Stanton

External Affairs Director

California State Teachers' Retirement System

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Regarding annuities: For all actuarial equivalent reduction applicable at retirement, the assumed investment return is used for the calculation. For CalSTRS Defined Benefit program and Defined Benefit Supplement program, a 7% interest rate is used. For CalSTRS Cash Balance plan, a 6.5% interest is used. In all cases, the mortality tables used are based on CalSTRS members mortality experience.

Regarding lump sum payments: When a CalSTRS member terminates employment, they have the option of leaving their contributions in the system and collecting a deferred benefit or to take a refund. By law, the refund of contributions made to the defined benefit plan is only for member contributions. California law also dictates the interest credited to these contributions. The rate is adjusted each fiscal year and is set equal to the average amount paid on two-year U.S. Treasury notes for the twelve month period between March 1st and February 28 preceding the fiscal year for which the rate applies. Based on this requirement, the interest credited to member DB contribution was 0.90% for FY 17-18 and 0.72% for FY 16-17

**Colorado PERA**

Matt Carroll, [mcarroll@copera.org](mailto:mcarroll@copera.org)

Same as rate of return. 7.5%

**Connecticut SERS**

Emails and left voice messages

**Connecticut TRS**

Emailed, no response

**Delaware SEPP**

The following is provided in STATE EMPLOYEES' PENSION PLAN RETIREMENT OVERVIEW at

<https://open.omb.delaware.gov/information/counseling/2015%20Retirement%20Overview-SEPP.pdf>

“Joint and Survivor Benefit (JSB)

No reduction to member’s pension = 50% survivor’s pension

2% reduction to member’s pension = 66.67% survivor’s pension

3% reduction to member’s pension = 75% survivor’s pension

6% reduction to member’s pension = 100% survivor’s pension

\*This election is irrevocable and must be made prior to the issuance of the first pension direct deposit.”

This would seem to confirm that the reduction in benefits across these options is in fact legislatively set. There is no notion that the cost of the survivor’s benefit is based on age of survivor or an interest rate to keep the present value the same across annuity options.

### **Florida FRS**

**Harry Halley III** | Operations and Pension Analyst

*Retirement*

[850-778-4405](tel:850-778-4405) (office) | [877-377-1737](tel:877-377-1737) (toll free)

Florida Department of Management Services

The Discount Rate used is equivalent to the FRS Investment Plan’s Rate of Return *Assumed Rate of Return (for the FRS Pension Plan)* in the year that the option factors were adopted.

### **GeorgiaERS**

Left message

### **GeorgiaTRS**

Left message

### **Hawaii ERS**

**Curry, Donna**, [donna.curry@hawaii.gov](mailto:donna.curry@hawaii.gov)

**Question 1: The interest rate is 7.0% the same as your investment return assumption.**

**Question 2: The answer is more complicated.**

- **For a retiree with contribution balances they can elect to receive a portion or all of the contribution balance as a lump sum. The lump sum is based on member contributions and interest earned on those contributions. However, there is a reduction to their annuity if they use this option and the reduction is based on the same 7.0% as for Question 1.**

· **Contributory and Hybrid members who terminate prior to retirement have the option of taking a refund of their member contributions and forfeiting their annuity (and their EUTF benefit). For contributory members they receive just their member contributions plus interest. For Hybrid Plan members they receive a matching portion of the employer contribution (50% for pre-2012 hires and 20% for post 2012 hires).**

#### **Idaho PERS**

**Jenny Flint | Public Information Officer | PERSI**

607 N 8th | Boise ID 83702 | ( (208) 287-9253 | 6 [\(208\) 334-2086](tel:2083342086)

Sent f-up email for discount rate for annuitant options.

Answer: For a separation payment we refund the amount of their contributions plus interest. The interest rate is calculated each year and is the greater of 90% of the net rate of return on the investment fund or 1 percent. This is from IDAPA 59.01-07.100.

#### **Illinois SRS**

Tim Blair, [Tim.Blair@srs.illinois.gov](mailto:Tim.Blair@srs.illinois.gov)

For all optional forms of benefits, we use the actuarial assumptions in place at the time of the calculation, including investment rate of return. For question 2, there is no lump sum option except for a termination refund, which is only the employee contributions, without interest. The only time interest is paid out is for the death of an active employee. The lump sum death benefit includes the employee contributions and credited interest. Hope this helps and please let me know if you have additional questions.

#### **Illinois TRS**

Emailed Carlton Lenoir, chief Benefits officer, [877-927-5877 EXT 2112](tel:8779275877) [clenoir@trsil.org](mailto:clenoir@trsil.org)

TRS does not pay a J&S benefit. We pay a single life benefit and if a member has an eligible survivor, we pay either 50% or 66 2/3% depending on the benefit tier the member is eligible for. The 66 2/3% is paid to survivor's under our latest benefit tier.

TRS members who terminate service and request a 100% distribution receive their contributions to the plan without interest.

Illinois MRF

Dan Duquette [dduquette@imrf.org](mailto:dduquette@imrf.org) Deputy Executive Director

1a) IMRF members contribute 4.5% of their salary towards retirement. Of that amount, 3.75% is for the member's retirement and .75% goes towards a surviving spouse benefit. Members who retire without an eligible spouse will receive a refund of the surviving spouse contributions, plus interest. Interest is granted at the end of the year for contribution balances at the beginning of the year that are still on deposit. Interest is calculated using our long term investment return assumption, which is currently 7.5%.

1b) An IMRF retirement benefit is determined by the Illinois Pension Code. There is not adjustment that is dependent upon whether or not there is an eligible spouse for a J&S benefit. Under our Tier 1 benefit, an eligible spouse is eligible for a benefit of 50% of what the member was receiving at the time of their passing. Under our Tier 2 benefit, an eligible spouse is eligible for a benefit of 66 2/3% of what the member was receiving at the time of their passing.

1c) Our actuary has provided IMRF with tables used to calculate the Present Value of a benefit. For retirements, we have 4 tables (male with a spouse, male without a spouse, female with a spouse, female without a spouse.) These tables allow us to properly consider the life expectancy aspect. The tables also take into consideration our 7.5% long term investment return assumption and the annual increase to the member's pension (for Tier 1 the increase is 3% of the original pension - not compounded). Increases are granted each January 1<sup>st</sup>.

2) If a member is not eligible for a retirement and elects to take a refund — The Illinois Pension Code specifies that the amount to be paid is the amount of the member contributions. As a refund due to termination of participation in the pension system, there are no employer contributions or interest in the refunded amount. However, if the refund is due to the death of a member, interest is included. The amount of the interest is based on the calculation described in 1a above.

Other1) Some spouses are eligible for the spousal pension (i.e. 50% of what the member would have received) if the member dies before applying for retirement. For this benefit there are separate actuary tables,

Other2) Some members elect a reversionary annuity that can pay a spouse more than 50%. This option will reduce the monthly payment to the member.

**Indiana PERF**

emailed

**Indiana TRF**

emailed

**Iowa PERS**

Judy Akre, Director of Communications

Iowa Public Employees' Retirement System

7401 Register Drive | P.O. Box 9117 | Des Moines, IA 50306-9117

[515-281-0043](tel:515-281-0043) voice

[515-281-0045](tel:515-281-0045) fax

[judy.akre@ipers.org](mailto:judy.akre@ipers.org)

[www.ipers.org](http://www.ipers.org)

Q. We are requesting that you provide the interest rate used to convert the single life benefit to the J&S benefit.

A. 7.5%

Q. Specifically, what interest rate is used by your plan to determine the lump sum distribution for separating workers and is the distribution based solely on employee contributions or does it include any employer contributions?

Members are always entitled to 100% of their own contributions and interest earnings. The interest rate is determined annually at the rate of 1% higher than a one year certificate of deposit. If members are vested and take a refund, they receive a portion of their employer's contributions made on their behalf plus interest. The portion is the percentage calculated when their years of service are divided by 30. For example: a member works seven years, the percentage of the employer share would equal (7 / 30) 23.33%.

**Kansas PERS**

Emailed generically, Bob sent emails to Ken Kriz?

Response from Alan Conroy, [AConroy@kpers.org](mailto:AConroy@kpers.org)

All J&S options are calculated using an actuarial reduction factor that is based on the age of the member and the designated beneficiary. For KPERS 1 members, the factors are set statutorily and the discount rate and mortality table are unknown. For KPERS 2 and 3 members, the discount rate for all forms of payment is the same as the System's investment return assumption (currently 7.75%). The factors differ based on the J&S option chosen and the ages of the member and the beneficiary.

KPERS does have a partial lump sum distribution option. For KPERS 1 and KPERS 2 members, which are traditional defined benefit formula plan designs, the lump sum is the present value of future benefits based on factors developed by the System's actuary. The factors are based on the assumptions approved by the Board, including the System's investment return assumption (7.75%). For KPERS 3 members, who participate in a cash balance plan, the partial lump sum option is based on the amount in the member's notional cash balance accounts at retirement. KPERS 1 members can take a 10%, 20%, 30%, 40% or 50% lump sum option, KPERS 2 members can choose a 10%, 20% or 30% lump sum option, KPERS 3 members can choose any percent of lump sum payment up to a maximum of 30% of their account balance.

**Kentucky**      **KERS**

emailed

**Kentucky**      **CERS**

emailed

**Kentucky**      **TRS**

emailed

**Louisiana**      **SERS**

**Steve Starc**, [sstark@lasersonline.org](mailto:sstark@lasersonline.org), Deputy General Counsel

**The Options are priced using a discount rate of 7.50%. This is the assumed rate of return less the expected returns to be used for purposes other than funding regular plan benefits (administrative expenses and gain-sharing funding of COLAs).**

**Question 2. Most public plans also provide a lump sum distribution option for participants who separate from the system. This distribution is often based solely on the employee's contribution throughout their career and a credited interest rate. Please indicate how your system calculates the lump sum value that will be paid to workers when they terminate their employment. Specifically, what interest rate is used by your plan to determine the lump sum distribution for separating workers and is the distribution based solely on employee contributions or does it include any employer contributions?**

**Members who separate from the system and request a refund of contributions (rather than a deferred benefit) receive a refund of employee contributions with no interest.**



**Louisiana TRSL**

emailed

**Maine PERS**

emailed

**Maryland SRPR**

Michael Golden

[mgolden@sra.state.md.us](mailto:mgolden@sra.state.md.us)

This information does not appear to be readily available in the valuation report. However, I have confirmed with the actuary that the valuation interest rate as of the June 30, 2017 valuation is 5.85% for all systems.

f-up q- According to our actuary, the 5.85% interest rate assumption was the 25<sup>th</sup> percentile expected investment return based on the 7.55% assumed investment return assumption at the point the decision was being made. This means it was set at a rate whereby it would be expected to be met or exceeded at least 75% of the time.

For termination refunds members are paid their contributions and interest balance as of the payment date. The Annotated Code of Maryland, State Personnel and Pensions article provides for payment of interest dependent on the member's system of participation. For members participating in the Retirement Systems the annual interest rate is 4%, and for members participating in the Pension Systems the annual interest rate is 5% per year. Code of Maryland Regulations (COMAR) provides for a calculation methodology of ½ of the regular interest multiplied by the balance of the member's individual account at the beginning of the fiscal year; and ½ of the regular interest multiplied by the balance of the member's individual account at the end of the fiscal year.

**Massachusetts SERS**

emailed

**Massachusetts TRS**

emailed

**Michigan SERS**

Anthony Estell

Director, Plan Development and Compliance

State of Michigan, DTMB, Office of Retirement Services

[517.284.4555](tel:517.284.4555)

[estella@michigan.gov](mailto:estella@michigan.gov)

For question #1: For our plans that offer a joint and survivor option, the actuarial assumed rate of return is used as the discount rate for adjusting the single life (our statutes refer to it as the straight life) allowance. Currently, our survivor option tables are based on an 8% interest rate. But we have recently implemented several changes that have lowered our discount rate, so we expect to have new tables that will likely use a rate somewhere between 6.75%-7%. The rate used for all of our actuarial calculations is the same as the actuarial assumed rate of return that we use for our plans.

Question #2: Members who terminate employment and are not vested in a pension (or who waive their rights to a vested pension) are eligible to take a refund of their contributions and interest on those contributions. The interest rate earned on their contributions varies depending on the retirement system, benefit structure within the system, and contribution type. Some are “hard-coded” in statute with a specific rate, such as 3% or 4%. Others receive a “market-rate” of interest.

**Michigan MERS**

**emailed**

**Michigan PSERS**

Anthony Estell, [estella@michigan.gov](mailto:estella@michigan.gov)

Director, Plan Development and Compliance

State of Michigan, DTMB, Office of Retirement Services

[517.284.4555](tel:517.284.4555)

For question #1: For our plans that offer a joint and survivor option, the actuarial assumed rate of return is used as the discount rate for adjusting the single life (our statutes refer to it as the straight life) allowance. Currently, our survivor option tables are based on an 8% interest rate. But we have recently implemented several changes that have lowered our discount rate, so we expect to have new tables that will likely use a rate somewhere between 6.75%-7%. The rate used for all of our actuarial calculations is the same as the actuarial assumed rate of return that we use for our plans.

Question #2: Members who terminate employment and are not vested in a pension (or who waive their rights to a vested pension) are eligible to take a refund of their contributions and interest on those contributions. The interest rate earned on their contributions varies depending on the retirement system, benefit structure within the system, and contribution type. Some are “hard-coded” in statute with a specific rate, such as 3% or 4%. Others receive a “market-rate” of interest.

**Minnesota MSRS**

**TIM REKOW, CPA** [Tim.Rekow@msrs.us](mailto:Tim.Rekow@msrs.us)

Chief FINANCIAL Officer | FACILITIES MANAGER

Minnesota State retirement System

[60 Empire Drive, Suite 300](#) | St. Paul, mn 55103

[651-284-7819](#) (w) | [651-331-1752](#) (c)

Question 1: The Fiscal Year 2017 J&S calculation for our State Employees Retirement Fund uses an interest assumption of 6.5 percent. This information is detailed in our actuarial reports, specifically the Actuarial Equivalent Factors section, which can be found here -

<https://www.msrs.state.mn.us/actuarial-reports>

Actuarial Equivalent Factors (pg 36)

Actuarially equivalent factors based on RP-2000 mortality for healthy annuitants, white collar adjustment, projected to 2025 using scale AA, blended 55% males, 8.50% pre-retirement interest, and 6.50% post-retirement interest.

(not the rate of return)

Question 2: For the State Employees Retirement Plan, when a member ends employment with the state, member contributions can be refunded. Refund will include 6.0 percent interest compounded daily until June 30, 2011, and 4.0 percent thereafter. This information is highlighted in the Summary of Plan Provisions section of our annual CAFR, which can be found here -

<https://www.msrs.state.mn.us/financial-information>.

Minnesota PERA

Doug Anderson (PERA), Executive Director [doug.anderson@mnpera.org](mailto:doug.anderson@mnpera.org)

Question 1. We are attempting to determine how the various annuity options are priced relative to the default single life annuity. What interest or discount rate is used to determine the monthly annuity amount for Joint and Survivor annuity relative to the single life annuity? 6.93%. This rate reflects the combination of the assumed 8% investment return and an assumed 1% annual cost of living adjustment  $\{(1.08/1.01) - 1\}$  Most public plans, determine the J&S monthly benefit by adjusting the single life annuity benefit based on the longer expected payout period associated with a J&S option. This adjustment utilizes the single life benefit, system mortality tables, and the age of the retiree and his or her spouse along with an interest rate to determine the J&S monthly benefit.. We are requesting that you provide the interest rate used to convert the single life benefit to the J&S benefit and also advise us if this is the rate of return or has a relationship to the rate of return. The rate reflects the 8% investment return assumption currently in State statutes and an assumed 1% annual cost of living adjustment. Currently the plan provides for a 1% COLA to retirees until the plan is 90% funded. When the plan is 90% funded, a 2.5% COLA would apply. Since the plan is not assumed to reach 90% funding until 2045, only a 1% COLA is valued in the conversion factors. PERA's board has proposed a legislative change to both the interest rate (8% to 7.5%) and the

**postretirement adjustment methodology (50% of CPI with a 1% floor and 1.5% cap). Both changes required legislative approval.**

**Question 2. Most public plans also provide a lump sum distribution option for participants who separate from the system. This distribution is often based solely on the employee's contribution throughout their career and a credited interest rate. Please indicate how your system calculates the lump sum value that will be paid to workers when they terminate their employment. Specifically, what interest rate is used by your plan to determine the lump sum distribution for separating workers and is the distribution based solely on employee contributions or does it include any employer contributions? PERA only provides for a return of contributions for non-vested terminations which is a refund of employee contributions with a 4% credited interest rate. Employer contributions are not refunded.**

**Minnesota      TRA**

**Emailed.**

**Mississippi      PERS**

Email , then an Information request

**Missouri          SERS**

**emailed**

**Missouri          LAGERS**

**emailed**

**Missouri          PSRS**

**emailed**

**Montana          PERS**

**emailed**

**Montana          TRS**

Shawn Graham

Executive Director

Montana Teachers' Retirement System

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1. Montana TRS utilizes the single life benefit, system mortality tables, age of the retiree and his or her spouse/beneficiary along with an interest/discount rate of 7.75% to adjust the single life annuity benefit. This 7.75% interest/discount rate is the actuarially assumed rate of return.
2. Montana TRS provides a lump sum distribution option to members that separate from the system. Members that choose this option receive a refund of their accumulated contributions (employee contributions only) plus interest. The interest credited to member accounts is annually set by the TRS board and varies from year to year depending on the Short Term Investment Pool (STIP) average interest rate. The Board uses the STIP average rate from the current year to set the interest rate credited to member accounts for the following year. Here is a table that illustrates the current interest rate credited to member accounts as well as the history:

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#### Member Account Interest -- Current and Rate History

TRS members contribute a portion of their gross salary to TRS. These funds are tracked in the member's contribution account. The interest rate is set annually by the TRS Board.

[View printable PDF](#)

Start Date	End Date	Percent
7/1/2017	Present	0.75%
7/1/2016	6/30/2017	0.55%
7/1/2014	6/30/2016	0.20%
7/1/2010	6/30/2014	0.25%
7/1/2009	6/30/2010	1.00%
7/1/2008	6/30/2009	2.00%
7/1/2007	6/30/2008	5.00%
7/1/2003	6/30/2007	4.00%
7/1/2002	6/30/2003	4.50%
7/1/1997	6/30/2002	5.50%
7/1/1993	6/30/1997	6.00%
7/1/1988	6/30/1993	7.00%

7/1/1982	6/30/1988	8.00%
7/1/1981	6/30/1982	7.00%
7/1/1971	6/30/1981	5.50%
7/1/1970	6/30/1971	5.25%
7/1/1969	6/30/1970	5.00%
7/1/1968	6/30/1969	4.75%
7/1/1967	6/30/1968	4.50%
7/1/1966	6/30/1967	4.25%
7/1/1963	6/30/1966	4.00%
7/1/1959	6/30/1963	3.50%
7/1/1955	6/30/1959	3.00%
7/1/1943	6/30/1955	2.50%
7/1/1939	6/30/1943	3.00%
7/1/1937	6/30/1939	4.00%

**Nebraska SEPP**

emailed

**Nebraska CEPP**

Emailed

**Nebraska SPP**

emailed

**Nevada PERS**

NVPERS Webmaster

6.5% , which includes the basic rate and accounting for assumed post retirement increases. (It's the rate of return including Post Retirement Increases.)

Lump sum

Refund of employee contribution only.

**New Hampshire**      **NHRS**

**Marty Karlon**

Public Information Officer  
New Hampshire Retirement System

[603-410-3594](tel:603-410-3594)

[marty.karlon@nhrs.org](mailto:marty.karlon@nhrs.org)

Rate of return used as to discount- currently 7.25%

Member interested is posted annually. Under current law, the interest rate for the calendar year is 2% less than the actual rate of return in the prior fiscal year or the assumed rate of return (currently 7.25%), whichever is lower. The interest rate cannot go below zero percent. In 2017, interest was zero, as a result of a 1.0% investment return in FY 17. This year, the return was 13.5%, so the 2018 interest rate will be 5.25%.

**New Jersey**      **PERS**

emailed

**New Jersey**      **TPAF**

emailed

**New Mexico**      **PERA**

emailed

**New Mexico**      **ERA**

emailed

**New York**      **ERS**

emailed

**New York**      **TRS**

**Richard Young, [richard.young@nystrs.org](mailto:richard.young@nystrs.org)**

Answer: The interest rate used by NYSTRS for conversion to the J&S optional benefit is 7.00%. This rate is lower than our assumed rate of return, which is 7.25%. The 7.00% rate used for determination of optional benefit amounts was adopted by the Board as permitted under statute, NYS Education Law Section 501(9)(c).

Answer: Members who terminate their employment before achieving vesting (5 years of service, or 10, depending on tier of membership) receive a lump sum benefit consisting of their member contributions

accumulated with 5.00% interest annually. It does not include any employer contributions. Members who terminate their employment after becoming vested receive a deferred vested monthly benefit which they are eligible to begin receiving upon attainment of earliest retirement eligibility (age 55).

**North Carolina TSERS**

Robert Clark, discount rate is Rate of return and 4% for lump sums

**North Carolina LGERS**

Robert Clark, discount rate is Rate of return and 4% for lump sums

**North Dakota PERS**

emailed

**North Dakota TRF**

Kopp, Fay L. , [fkopp@nd.gov](mailto:fkopp@nd.gov)

Interest rate used in converting SLA to J&S is 7.75% which is NDTFFR's investment return rate actuarial assumption. (See ND Administrative Code 82-05-04-02.)

Member contributions are credited at annual rate of 6%, compounded monthly (ND Century Code 15-39.1-04 (6). Refunds/lump sum distributions include member contributions plus 6% interest (ND Century Code 15-39.1-20). Employer contributions are not include in refund payment.

**Ohio PERS**

emailed

**Ohio STRS**

Gary Russell

Deputy Executive Director, Member Benefits

Chief Benefits Officer

[614-227-2889](tel:614-227-2889)

Question 1 STRS Ohio's joint and survivor annuity options are based on a 7.45% interest rate based on RP-2014 mortality tables with the generational mortality improvement scale MP-2016.

Yes, 7.45% is our assumed rate of return. The rate was decreased as part of our five year experience review. The new rate went into effect July 1, 2017.



Question 2. The lump sum withdrawal calculation is based on the years of service a member has.

With less than three years, the member receives his contributions plus 2% interest per year.

With three years but less than five years, the member receives his contributions plus 3% interest per year.

With five or more years of service, the member receives his contributions plus 3% interest per year plus a 50% match of the member's contributions plus interest.

**Oklahoma PERS**

**emailed**

**Oklahoma TRS**

Tom Spencer

[tom.spencer@trs.ok.gov](mailto:tom.spencer@trs.ok.gov)

TRS lowered its "discount rate" for measuring pension liabilities from 8.0% to 7.5% in 2016. The discount rate is often referred to as the "investment return assumption." Your description of our methodology is correct. Our actuarial firm prepares "reduction factors" for our retirement benefit options. Those are based on the age of the joint annuitants and the mortality tables are used to arrive at those reduction factors.

All of our participants have the option to leave employment and withdraw from our retirement system. They are entitled to withdraw their contributions. These members get interest on these contributions depending on how many years of service they had, and the interest rate is determined by the dates the service was accrued. Here is a passage from one of our administrative rules that explains how this is done:

**715:10-11-1. Withdrawal from membership by an eligible person**

**(4) Interest rate on withdrawals shall be paid as follows:**

**(A) July 1, 1968 through June 30, 1977 - four and one-half percent (4 1/2%), compounded annually.**

**(B) July 1, 1977 through June 30, 1981 -seven percent (7%), compounded annually.**

**(C) As of July 1, 1981 to present - eight percent (8%), compounded annually.**

**(5) Interest payment on withdrawals shall be paid as follows:**

**(A) If termination occurs within sixteen (16) years from the date membership began, fifty (50) percent of the total accrued interest shall be paid.**

**(B) With at least sixteen (16) but less than twenty-one (21) years of membership, sixty (60) percent of the total accrued interest shall be paid.**

(C) With at least twenty-one (21) but less than twenty-six (26) years of membership, seventy-five (75) percent of the total accrued interest shall be paid.

(D) With at least twenty-six (26) years of membership, ninety (90) percent of the total accrued interest shall be paid.

Oregon PERS

Pennsylvania SERS

From website

Generally, the annual benefit equals an employee's [final average salary x years of service x class of service multiplier x 2%](#), adjusted for their age at retirement. The law does not provide automatic [cost of living adjustments](#) after retirement. When employees leave state service [before becoming eligible for a lifetime pension](#), they can withdraw the amount they have contributed to SERS, plus 4% interest.

Pennsylvania PSERS

emailed

Rhode Island ERS

emailed

South Carolina SCRS

Left message

South Dakota SRS

Michelle Mikkelsen

[Michelle.Mikkelsen@state.sd.us](mailto:Michelle.Mikkelsen@state.sd.us)

Rate of return

Tennessee CRS

James Wayman

Director TCRS

*Tennessee Consolidated Retirement System*

Tennessee Department of Treasury

Office: 615-253-3847

[jamie.wayman@tn.gov](mailto:jamie.wayman@tn.gov)

It was a pleasure to speak with you this morning regarding how our joint and survivorship options are determined. As I mentioned, we do use the investment return assumption as the discount rate and we recently lowered our assumption from 7.5% to 7.25%. Below is a link to our latest experience study.

<http://www.treasury.state.tn.us/tcrs/PDFs/BOT-2016-Experience-Study.pdf>

**Texas ERS**

**Left message**

**Texas TRS**

**Left message**

**Texas MRS**

**Bill Wallace, [bwallace@tmrs.com](mailto:bwallace@tmrs.com)**

In the conversion from single life to J&S, Texas MRS uses 5% interest rate. This rate is set by Board rule.

Lump sum distributions are determined by employee contributions with 5% interest credited to the contributions. This rate is set by legislation.

The current assumed rate of return to their assets is assumed to be 6.75%

**Utah SRS**

**Ryan at [801-366-7414](tel:801-366-7414)**

They use 6.95% to convert single life to J&S annuity. 6.95% is their assumed rate of return.

**Vermont SRS**

**Left message**

**Vermont TRS**

**Left message**

**Virginia SRS**

Roy Badura, 804-775-3519, [rbadura@varetire.org](mailto:rbadura@varetire.org)

discount rate is same as rate of return, 7%

Lump sum 4%

Social security leveling uses rate of return

**Washington PERS**

**Stephanie Roman, MA, JD**

*Associate Policy Analyst*

Office of the State Actuary

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Olympia, Washington 98504-0914

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Phone [360.786.6145](tel:360.786.6145)

Fax [360.586.8135](tel:360.586.8135)

To answer your first question, in Washington State, DRS is the plan administrator for the state retirement plans. As plan administrators they determine the interest rates used for the TRS and PERS joint and survivor benefits. OSA produces annuity factors for DRS and the last joint and survivor factor we provided to DRS were based on a 7.7% interest rate.

For lump sum payments, different interest rates are used depending on whether a member is retiring or withdrawing from the plan and forfeiting their future benefit. If a retiree receives all or part of their pension in the form of a lump sum, DRS uses annuity conversion factors to determine the payout amount. OSA provides these factors and the last factors we provided to DRS were based on a 7.7% interest rate. Now, if a member withdraws from their plan, DRS would refund the contributions with interest as determined by the department.

**Washington TRS**

**Stephanie Roman, MA, JD**

*Associate Policy Analyst*

Office of the State Actuary

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**West Virginia PERS**

**Left message**

**West Virginia TRS**

**Left message**

**Wisconsin WRS**

A while back you inquired about the interest rate used for calculating a Wisconsin Retirement System benefit.

- For participants first employed after 1981 and who continued to be employed between 1984 and 1998, the fixed interest in 1985 and future years is set by statute at 5%.
- The 5% fixed interest provision was eliminated for all participants who were active WRS employees on or after December 30, 1999.
- Beginning on December 31, 1999, all active employees have the annual Core effective rate interest credited to their accounts.
- Additional contributions and all contributions of participants employed prior to 1982 continue to receive effective interest rate crediting based on the investment experience of the Trust Fund.

Interest crediting could affect a participant's decision about when to apply for a benefit. [Core and Variable effective rates of interest](#) are normally announced by March.

Assumed 5% interest is paid for the year an annuity begins, prorated for the number of months from January 1 through the full month prior to the effective date of a participant's benefits.

If a participant applies for a lump sum benefit, prorated 5% interest applies to the account balance from January 1 through the end of the month **before** a benefit is approved to be paid. Apply by September 1 to have a lump sum benefit approved **and** paid by the end of the year. Then a prorated 5% interest is applied instead of the effective rate of interest when paid the next year.

I hope this information confirms your observations.

Thanks,  
Mark

Mark Lamkins

Director of Communications  
Wisconsin Department of Employee Trust Funds  
Direct: [\(608\) 266-3641](tel:6082663641)

[mark.lamkins@etf.wi.gov](mailto:mark.lamkins@etf.wi.gov)

[etf.wi.gov](http://etf.wi.gov)

**Wyoming      WRS**

David Swindell, Deputy Director

307-777-7691

WY uses the assumed discount rate to price all annuity options relative to the straight life. Currently 7.75%

Lump sum distributions are based on employee contributions plus interest. Interest rate is set by the Board and is 3%.