Frequently Asked Questions: Assumed Rate (updated 10-7-13)

1. What is the "assumed rate"?

The assumed rate is the rate of investment return (including inflation) that the PERS Fund's regular account is expected to earn over the long term. Oregon Administrative Rule 459-007-0001(2) states that the assumed rate "means the actuarial assumed rate of return on investments as adopted by the Board for the most recent actuarial valuation."

2. How is the assumed rate determined?

The PERS Board decides on the assumed rate based on:

- The long-term projection of investment returns based on the asset allocations of the Oregon Investment Council and the related capital market expectations, and
- Independent analysis by PERS' actuary, Milliman, of the projected returns from that asset allocation, again over a long-term investment horizon.

3. What is the current assumed rate?

The current assumed rate is 8 percent until January 1, 2014 when the assumed rate becomes 7.75 percent (see question 6).

4. When is the assumed rate set?

The assumed rate is reviewed and adopted by the PERS Board every two years as part of the system's Experience Study.

5. What happens when the assumed rate changes?

The assumed rate is used when crediting Tier One regular accounts with annual earnings. When the rate changes, annual earnings are credited based on that new rate.

The assumed rate is also used to credit pro-rated earnings to a Tier One member's regular account upon retirement or a withdrawal, so those earnings would be pro-rated at the new assumed rate.

When a Tier One or Tier Two member retires, his/her account is annuitized based on the assumed rate to calculate the member's retirement benefit. Changing the assumed rate means using new actuarial factors, and that will change the amount of the benefit. This change would have the biggest effect on Money Match and Formula Plus Annuity benefit calculations.

The assumed rate also is used to discount system liabilities when setting employer rates. When the earnings assumption is lowered, the amount that must be contributed by employers increases to cover the reduced earnings projection. Conversely, if the assumed rate is increased, the amount that must be contributed by employers decreases due to the projected increase in earnings.

6. When will the assumed rate change?

The assumed rate will change to 7.75 percent beginning January 1, 2014.

The new assumed rate becomes part of updated actuarial equivalency factors (life expectancy tables) that will be effective January 1, 2014. A Tier One member whose highest benefit calculation is Money Match would need to retire on or before December 1, 2013 to have the current assumed rate (8 percent) and the current actuarial equivalency factors used to annuitize the benefit.

7. **What is the connection between the assumed rate and actuarial equivalency factors (AEFs)?**
When retirement benefits are calculated using an account-based method such as Money Match and Formula Plus Annuity, or adjusted for benefit payment options, AEFs are used to determine the benefit amount. AEFs are based on two primary variables:
1) expected member longevity (how long members are expected to live) and
2) the assumed earnings rate (how much the member's account balance will earn during retirement).

When either the mortality or earnings rate assumptions are changed by the Board, the AEFs must be updated. The recalculated AEFs are then used to calculate the benefits of future retirees. The actuary will report recommended changes to the AEFs to the Board in November 2013. Updated AEFs will become effective January 1, 2014, as required in statute.

8. **If I am receiving installment payments of my account because I chose a lump-sum option, will I be affected by a change to the assumed rate?**
Yes, if you are a Tier One member. Earnings are credited to the remaining balance of your account and distributed with your last installment. The change to the assumed rate will prospectively change the earnings rate applied to your remaining account balance.

Note that monthly benefit payment amounts for members who retired before the assumed rate changes will not be affected, as those benefits were set using the actuarial factors in place when they retired.

9. **Does the assumed rate affect a retirement benefit if the member's benefit is based on the Full Formula method?**
The basic Full Formula benefit is based on final average salary, years of service, and a statutory factor. None of those elements are affected by the change in the assumed rate. However, if the member elects a benefit option, actuarial equivalency factors are applied and a change to the assumed rate would affect those factors (see Question 7).

10. **Are employer contribution rates affected by a change in the assumed rate?**
Yes. Employer contribution rates are based on the balance in the employer's reserve earning the assumed rate in the future; employer contribution rates will change to reflect the different future earnings assumption. The employer contribution rate changes will become effective with the next rate setting valuation following the change in the assumed rate (e.g., the 2015-17 biennium).

11. **Can you show an example of the impact of the change in the assumed rate?**
The example below shows how using the new assumed rate of 7.75 percent (effective January 1, 2014) rather than the current 8 percent will affect a future retiree under the Money Match formula.

Assumptions used in example:
- Tier One general service member
- Age 59 1/2
- $135,000 accumulated Tier One member contribution account balance as of June 30, 2013

Benefit Start Date	**Assumed Rate**	
	8%	**7.75%**
December 1, 2013	$2,172	
January 1, 2014		$2,144
March 1, 2014		$2,176

The change in the assumed rate from 8% to 7.75% would require delaying retirement for about three months to reach the initial benefit level based on the AEFs changing January 1, 2014.

12. What is the combined impact of a change in the assumed rate to 7.75% and the subsequent change in actuarial equivalency factors (AEFs)?

Reducing the assumed earnings rate results in a reduction in the AEFs used to derive Tier One/Tier Two Money Match and Tier One Formula Plus Annuity benefits.

Money Match benefits will be reduced by approximately 2.3% for a member retiring at age 55 and 1.9% for a member retiring at age 65. Formula Plus Annuity benefits will be affected by approximately half as much as Money Match benefits. However, both of these reductions may be limited as the member may shift to a Full Formula calculated benefit.

OPSRP member benefits are only calculated on a formula basis.