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CORRESPONDENCE MEMORANDUM

DATE: July 15, 2008

TO: Employee Trust Funds Board
Teachers Retirement Board
Wisconsin Retirement Board

FROM: Linda Owen, Policy Analyst
Division of Retirement Services

SUBJECT: How Money Purchase Retirement Benefits and Variable Adjustments to Formula Retirement Benefits are Calculated

This memo is for informational purposes only. No action is required.

At the June board meetings there was a request for information about how money purchase retirement benefits are calculated. The issue of Variable fund participation reducing participants' basic formula benefits was also raised. This memo provides a basic explanation of how to calculate money purchase retirement benefits and Variable adjustments to formula retirement benefits.

Money Purchase Retirement Benefits
Wisconsin Retirement System (WRS) retirement benefits are calculated under two separate methods, formula and money purchase, and the participant receives the higher of the two calculations. Participants are generally familiar with the formula benefit calculation, which is based on the three highest years of earnings, formula multipliers based on employment category, years of creditable service and any applicable actuarial reduction for early retirement.

However, participants are generally less familiar with the money purchase calculation. It is actually simpler than the formula benefit calculation, since it is based on only two things:

- A numerical factor based on the participant's age (and therefore his/her life expectancy)[1] that is provided by the actuary. This "money purchase factor" incorporates the assumption that the monies in the annuity reserve will earn 5% interest each year.

- The employee required contribution balance in the participant's account, plus a matching dollar amount from the employer reserve.[2]

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[1] *All benefit calculation factors, including money purchase factors, are based on years **and months** of age.*

[2] *Exception: If the participant has purchased Other Governmental Service (OGS), there are no matching contributions from the employer reserve for the OGS service purchase payment.*

Reviewed and approved by Sari King, Administrator, Division of Retirement Services.

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Signature Date

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In other words, the money purchase annuity is the monthly amount that the participant's account balance will buy, based on the participant's life expectancy. Following is a sample comparison of the monthly annuity that a $100,000 money purchase balance will buy for a participant age 55, versus a participant who is age 62:

Age	**Account Balance**		**Money Purchase Factor**		**Monthly Annuity**
55	$100,000	x	.00565	=	$565
62	$100,000	x	.00643	=	$643

The older the participant (and therefore the shorter the life expectancy), the larger the monthly annuity that a specific amount of money will "purchase."

Variable Adjustments to Formula Retirement Benefits
Once participants' elections to participate in the Variable fund become effective, 50% of all future contributions are invested in the Variable fund. This results in different rates of interest (based on investment earnings) being credited to the Core and Variable fund portions of their accounts. Each Variable participant's account includes a record of the difference between the actual account balance versus what the dollar balance would be if the participant had never participated in the Variable fund.

If the Variable fund has outperformed the Core fund there will be extra money in the participant's account to fund a retirement benefit, and the difference is called the "Variable excess." However, if there is less money in the participant's account because the Core fund has had higher investment earnings than the Variable fund, there will be less money in the participant's account than there would be if the participant had never elected variable participation. In this case the difference between the actual account balance and what the balance would be without the Variable participation is called the "Variable deficiency."

When a participant retires, the **money purchase** retirement benefit calculation is based on both the Core and Variable fund portions of the participant's account. The Core and Variable fund gains and losses are already reflected in the participant's account balances, and therefore are already included in the money purchase retirement benefit calculation. However, since the formula benefit calculation is not based on the dollar balances in the participant's account, a "Variable adjustment" must be made to the formula benefit to reflect the Variable excess or deficiency in the participant's account.

The Variable adjustment is basically a money purchase calculation. If there is a Variable excess, the monthly amount that the Variable excess balance will buy (based on the participant's age) is added to the formula benefit. On the other hand, if there is a Variable deficiency the monthly value of that deficiency balance must be subtracted from the formula benefit.

Following is a sample comparison of the Variable adjustment to a $1,500 formula annuity that a $10,000 variable excess or deficiency will provide for a participant age 55, versus the Variable adjustment for a participant who is age 62:

Age	Variable Excess		Money Purchase Factor		Variable Adjustment		Unadjusted Formula Annuity		Formula Annuity after Adjustment
55	$10,000	x	.00565	=	$56.50	+	$1,500.00	=	$1,556.50
62	$10,000	x	.00643	=	$64.30	+	$1,500.00	=	$1,564.30
	Variable Deficiency								
55	($10,000)	x	.00565	=	($56.50)	+	$1,500.00	=	$1,443.50
62	($10,000)	x	.00643	=	($64.30)	+	$1,500.00	=	$1,435.70

Please contact me at (608) 261-8164 if you have any questions.