

OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM
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MEMORANDUM

DATE: February 3, 2006

TO: OPERS Retirement Board Members

FROM: Julie Reneau – Director, Benefits Administration
Beverlon Hodge – Assistant Director, Benefits

RE: **V. Discussion Items:**
A. Purchase of Service Credit Calculations

Purpose: To discuss service credit purchases as they relate to the cost calculations and the system's unfunded actuarial liability of such purchases. This discussion is offered to keep the Board apprised of the Ohio Retirement Study Council (ORSC) activity regarding service purchases and to discuss whether the Board continues to be satisfied with the previous decision to pursue statutory changes regarding a unified service purchase formula these calculations. These topics will be addressed as they relate to good public policy and sound funding for the system.

Background: There are over 20 different types of service purchases that have been added to the statutes since the 1950s. The service credit purchase types differ in eligibility criteria and cost calculations. The eligibility to purchase service credit and the cost calculation for each service type is defined in the Ohio Revised Code and in the Ohio Administrative Rules. Attached is a chart documenting the various service credit purchase types, current calculation methodologies, proposed calculations and the subsidization percentages determined in the actuarial study (See Attachment A – *Service Credit Purchase Types*).

Service credit purchases are popular with members. In terms of volumes, 2005 statistics on service credit purchase activity (including restorations) at Ohio PERS is as follows:

- 23,470 cost estimates mailed
- 9,233 purchased service in a lump sum payment
 - 2,280 of these purchases included a rollover
- 40,329 purchases were being paid via payroll deduction

Ohio Retirement Study Council Request for Information on Service Credit Purchases

At the April 2005, meeting of the ORSC, each of Ohio's state retirement systems was asked to conduct a study of the various types of service credit that may be purchased by members at a cost that is less than the full actuarial liability for the credit. The ORSC wanted the report to:

- (1) Explain the current methodology (formula) used by Ohio PERS to determine actuarial liability for purposes of service credit purchases and, in doing so, provide an opinion as to whether any changes to this formula are appropriate to ensure that Ohio PERS is receiving the full actuarial liability.
- (2) Review the current formulas required for the service credit purchases, to determine the percentage of actuarial liability that is paid by the member and Ohio PERS. The percentage of liability paid by the member should be determined based on Ohio PERS' current methodology (formula) for determining 100% of the actuarial liability.

In December, Ohio PERS submitted the service credit purchase report to the ORSC. The study was completed by our actuary, Gabriel, Roeder, Smith & Company (see Attachment B, *Ohio PERS Service Credit Purchases*). The results of the study show that while the member pays a calculated amount as provided by the Ohio Public Employees Retirement System (OPERS) for this service, the system subsidizes a substantial portion of the pension liability for these purchases. The GRS recommendation in the report stated:

As part of this service purchase study, we recommend that OPERS review the policy decisions with respect to whether members should be charged for the "promotion of past service" for the relevant R.C. sections. In addition, we suggest a review of whether to continue the practice of using a flat percentage of pay as the definition of "additional liability." Finally, if use of a flat percentage is considered to be the best ongoing policy, the level of such flat percentage should also be reevaluated.

In early 2006, it is expected that the ORSC will take up the topic of service purchase liability with the Ohio systems. The ORSC is interested in knowing how much the Ohio retirement systems are subsidizing service purchases, which in turn, increases each system's unfunded liability and, thus, negatively effects funding status.

System Funding Implications of Service Credit Purchases

In each case, when a member purchases service, the service credit is added to the member's record and is ultimately used in benefit calculations. The cost charged for the service is defined by statute. The cost to provide the additional benefit that is in excess of the monies paid in by the member produces an unfunded liability to the system.

As a matter of policy, Ohio PERS presently defines the “Total Additional Liability “ in terms of 20% of pay per year of service. The actual true cost liability of any purchase is highly dependent upon individual circumstances.

Circumstances that affect the liability to the system include:

- When the person takes a benefit
 - Will the person stay in service until reaching retirement eligibility age?
 - Will the person quit with a vested, deferred benefit?
 - What was the timing of the purchase relative to the benefit payout?
- What is the person’s age when service is purchased?
- Did the service purchase have the effect of promoting past service?

Promotion of service can be thought of as, ‘Did the additional service now make the person’s benefit payable at an earlier time/age?’ Take for example, a member is age 50 with 28 years of service and purchases two years of service. Without those two years of service, the member would have been eligible to retire at age 52 (with 30 years of service). However, after the purchase, the member can retire at age 50, because the total service credit is 30 years.

The current and proposed (October 2004) cost calculations are based on a straight percentage and they do not take into account:

- Age or sex of member at purchase
- Length of time until benefit payout
- Promotion of service

The fact that age, sex, time and promotion of service are not included in the cost formula, make the calculations less accurate in projecting the true cost. Since completing the ORSC study, we have worked with GRS on some potential alternatives that could get our cost calculation closer to the true cost of the service. The chart below was prepared by GRS to compare the true cost of the purchased service under our current 20% of pay calculation as compared to other potential methods that bring the cost closer to the actual true liability of the cost. This chart was developed using the actual sample cases provided by Ohio PERS for the ORSC study and applying various calculation methodologies. As you can see, including age and promotion of service provides a closer cost estimate to the true cost of a service purchase.

	<i>Current Policy</i>	<i>Alternate Method 1</i>	<i>Alternate Method 2</i>	<i>Alternate Method 3</i>	<i>Alternate Method 4</i>	<i>Alternate Method 5</i>
<i>R.C. Section</i>	<i>20% of pay for each year of purchased service</i>	<i>25% of pay for each year of purchased service</i>	<i>Alternate 1 plus addl 0.5% for each year of promoted svc</i>	<i>Age/Service based actuarial calculation</i>	<i>Age based schedule of factors</i>	<i>Age based schedule of factors adjusted for past service</i>
145.01(Y)	\$ 175	\$ 219	\$ 219	\$ 132	\$ 228	\$ 293
145.2	153,706	192,133	222,460	202,706	175,937	226,315
145.201	314,659	393,324	528,875	675,959	396,619	510,188
145.28	234,537	293,171	403,100	486,057	275,342	354,184
145.29	81,547	101,934	122,551	108,532	95,925	123,393
145.291	63,977	79,971	100,851	123,731	68,299	87,856
145.293(A)(1) and (2)	455,697	569,621	714,029	659,193	669,858	861,668
145.301(A)(B) and (D)	410,990	513,738	629,511	611,039	540,100	694,754
145.47 (leave of absence only)	29,313	36,641	40,081	31,245	31,050	39,941
Total	\$ 1,744,601	\$ 2,180,751	\$ 2,761,677	\$ 2,898,594	\$ 2,253,358	\$ 2,898,594
True Cost	\$ 2,898,594	\$ 2,898,594	\$ 2,898,594	\$ 2,898,594	\$ 2,898,594	\$ 2,898,594
Total as % of True Cost	60%	75%	95%	100%	78%	100%

2004 Board Direction to Pursue Legislative Changes

In October 2004, the Board gave direction for staff to seek legislative action to modify the service credit purchase provisions to simplify the formula for service purchases that use a base percentage multiplied by the normal cost. In certain types of purchases, the Ohio Revised Code would remove the current 20% cost formula (Board action in the early 1990s, based on the actuary's recommendation) and replace it with a formula, determined by our actuary, that represents the full liability for the credit purchased. GRS applied the 20% of pay per year of service policy standard as the full liability cost in their recommendation. These changes would make for a unified service purchase formula that would minimize the cost to Ohio PERS.

Working with GRS' recommendation, and as approved by the Board, it was determined that the base percentage would be 150% of the state division normal cost as noted below:

State/Local:

150% x state division normal cost of 14.20% (2003 rate) = 21.3% x FAS (or current salary) x service. *Based on the 2004 (12/31/04 valuation) normal cost rate of 14.67% it would be 22.01% x FAS (or current salary) x service.*

Law Enforcement:

150% x law enforcement division employer normal cost of 18.73% (2003 rate) = 28.1% x FAS (or current salary) x service. *Based on the 2004 (12/31/04 valuation) normal cost rate of 18.72% it would be 28.08% x FAS (or current salary) x service.*

Combined Plan: Represented by $\frac{1}{2}$ the value of the Traditional Plan service, or 10.65%. *Based on the 2004 (12/31/04 valuation) normal cost it would be 11.01%.*

Please note, that this change increases the cost from the current 20% of payroll per year of service purchased, but it does not come close to paying for the full cost of the service.

The Board also directed staff to pursue legislation to simplify the method to calculate service purchase costs on redeposits for previously refunded service. Based on the actuary's recommendation, that calculation was to change as follows:

Redeposits: Simplify the formula that requires a charge equal to the current member contribution rate times the FAS (or current salary) times the number of years of service.

Service Credit Purchase Changes on Hold

It was staff's goal to include the service credit purchase changes in HB 272, which includes other changes affecting Ohio PERS. However, due to the ORSC request for a service purchase study, staff has not yet pursued combining the Board's changes into the current amendments offered to HB 272.

Issues: Defining Total Additional Liability

Currently, as matter of policy, Ohio PERS defines "Total Additional Liability" in terms of 20% of pay per year of service. In October the Board did request changes that link the cost to 150% of the normal cost rate. This change increases the percentage rate to 22.1% for non-LE credit and 28.08% for LE credit.

The question before the Board is whether the Board continues to feel comfortable with the definition as determined in October 2004, or whether you would like staff to work with GRS to bring options that bring us closer to collecting the true cost, or full liability.

Considerations for Discussion

- **Individual Equity.** The calculation should produce a fair measure of the value received by the member for the amount of money paid to Ohio PERS. If the cost were to be 100% of the true cost, it may be cost prohibitive for many members to purchase. It would also negate the positive spirit of the service credit purchase legislation.
- **Public Policy.** In some cases it is in the public interest that Ohio PERS subsidize certain service purchases. The Legislature provided these service purchase options to enhance the pensions of the eligible groups. Is it good public policy to continue subsidizing the groups as has been done to date?

- **Funding Issues.** The system funding is affected by subsidizing service purchases. It produces an unfunded liability of those costs not paid by the member. As of December 31, 2004, Ohio PERS pension system is funded at 87.9%, with a 24-year amortization period in which to fully amortize the current unfunded liability. Also, the closer we get to 100% funding the more likely assets could be used to fund the health care program. The current solvency period for health care program is 17 years (December 31, 2004).

Next Steps: For the Board to determine if any change is necessary to the cost calculation of service credit purchases as set forth in October 2004. If a change is warranted, the Board should indicate what is the appropriate definition of total additional liability that should be used as service credit cost calculations. Staff will then work with the actuary to develop methodologies consistent with that direction.

Attachments

Attachment A

Ohio PERS Service Credit Purchase Types

STATUTORY CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Elective/ Appointed Official Denied Salary ORC Section 145.01	TP	When a member has been elected to an office, the term of which is two or more years for which an annual salary is established and in the event the salary is legislatively increased but the member cannot receive the increase because of Ohio's constitutional prohibition against in-term increases, the member may elect to have the amount of his contributions calculated upon the basis of the increase. A member who has not elected to have such amount withheld may at any time elect to purchase the denied salary.	-5.7%	Member contributions on the denied salary plus 6% compounded annual interest from the date on which the last contribution would have been withheld to the date of payment.	An amount equal to the member and employer contributions on the denied salary plus 6% compounded annual interest from the date on which the last contribution would have been withheld to the date of payment.
"	CO	(same)		(same)	(same)
"	MD	(same)		(same)	(same)
Prior Elective Service ORC Section 145.20	TP	After contributing to OPERS for 18 months, a member may purchase credit for elective service in Ohio completed before the date of membership in OPERS, provided that service was not subject to Social Security.	81.3%	An amount equal to the contribution rate in effect when payment is made, multiplied by the full salary during all periods of non-contributing service, plus 6% interest from the beginning date of service to be purchased to the date of payment. A matching employer's share is billed to the employer.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased. No employer billing.
OAC Section 145.3.21	CO	(same)		(same)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
Additional Elective/ Appointed Service (35%) ORC Section 145.201	TP	Any elected official who is a member of OPERS, or any member who has been appointed by the governor with the advice and consent of the Senate to serve full-time as a member of a board, commission or other public body may purchase 35% additional credit of any full-time terms served since January 1, 1935 which were not subject to Social Security.	70.7%	A member may pay an amount into the Employees' Savings Fund which is determined by multiplying the current employee contribution rate by 35% of the salary earned in each term of office for which the credit is sought. Member must also pay an equal amount into the Employer's Accumulation Fund. No interest payment is required on either of these amounts.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		(same)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
Exempt Service ORC Section 145.28	TP	A member of OPERS with at least 18 contributing months may purchase service credit which was previously covered by a valid exemption under OPERS.	13.4%	The cost is calculated by multiplying the member's salary for the 12 months of contributions preceding the purchase date by a percentage rate set by the Retirement Board (currently 20%), times the service credit to be purchased.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		10% rate	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a



STATUTORY CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Prior Service ORC Section 145.29	TP	A member of OPERS may purchase credit for service performed for an employer prior to the date the employer joined OPERS. Credit may also be purchased by a member who has non-contributing service as a firefighter not covered by an approved exemption.	91.1%	The cost is an amount equal to the contribution rate in effect when the payment is made, multiplied by the full salary during all periods of non-contributing service, plus 6% interest from the beginning date of service to be purchased to the date of payment.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		(same)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
Leave of Absence (interest) ORC Section 145.291	TP	Up to one year of credit may be purchased by a member who was off the payroll and on an authorized leave of absence. A member must have worked at least one year after returning from the leave.	56.9%	The cost is calculated by multiplying the member's earnable salary that would have been received during the leave by the contribution rate in effect at the time of payment, plus 6% interest from the time of the leave to the date of payment.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		(same)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
Out of State, Federal, or Ohio Municipal Retirement System ORC Section 145.293	TP	A member can purchase credit for: 1) service with federal gov't; 2) service in another state which, had it been in Ohio, would have been covered by an Ohio Retirement System; or 3) contributing service in a municipal system in Ohio, only if not eligible to purchase as withdrawn service with the Cincinnati Retirement System. Maximum credit is 5 years or the total Ohio service credit, whichever is less. For persons retiring on a joint basis, a maximum of 5 years out-of-state service may be purchased between the non-uniformed systems: OPERS, STRS, and SERS. Service credit being used, or that will be in a retirement payment other than Social Security, may not be purchased.	52.9%	The cost of such purchase is the contribution for the first year of full-time Ohio credit after the service to be purchased, multiplied by the number of years purchased, plus 6% interest from the beginning date of OPERS membership after the service to be purchased to the date of payment.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		(same)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
School Board Service ORC Section 145.299	TP	OPERS members may purchase credit for service as a school board member before June 30, 1991. A member must agree to retire within 90 days from the date of payment.		The cost is calculated by multiplying the member's earnable salary for the 12 months preceding the purchase date by a percentage rate set by the Retirement Board (currently 20%), times the service credit to be purchased.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		10% rate	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a

STATUTORY CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Military Service ORC Section 145.301	TP	A member may purchase up to five years of military service or an amount equal to accumulated Ohio service, whichever is less, if that service is not used for other retirement pay (except Social Security or reserve service). Also, if captured by the enemy, a member may purchase additional credit for up to five years spent as a prisoner of war. For persons retiring on a joint basis, a maximum of five years of either military or POW service may be purchased between all of the non-uniformed retirement systems: OPERS, STRS, and SERS.	50.2%	The cost is calculated by multiplying the member's salary for the 12 months of contributions preceding the purchase date by a percentage rate set by the Retirement Board (currently 10%) times the service credit to be purchased.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.3.21	CO	(same)		(same as above except 5% rate)	(same as above except at 1/2 the % rate)
n/a	MD	n/a		n/a	n/a
Plan Change Service Credit ORC Section 145.814 OAC Section 145.3.40	MD to CO	Members who are eligible to participate in all three plans may change their retirement plan selection during certain periods of service. Once the member elects to change their plan, OPERS will prepare a cost statement to allow the member to move (purchase) service credit from the prior plan into the new plan. The member will have 180-days from the effective date of the plan change to transfer funds from the previous plan in order to purchase the service credit. Any remaining balance may be paid in a lump sum payment or by payroll deduction.		The cost to purchase service credit in the new plan that was established in the previous plan is the greater of 1) 10% of your last 12 months of earnable salary; or 2) 10% of your final average salary (FAS) times the amount of service purchased.	(same as below except at 1/2 the % rate)
OAC Section 145.2.18	MD to TP	(same)		The cost to purchase service credit in the new plan that was established in the previous plan is the greater of 1) 20% of your last 12 months of earnable salary; or 2) 20% of your final average salary (FAS) times the amount of service purchased.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.
OAC Section 145.2.18	CO to TP	(same)		The cost to purchase service credit in the new plan that was established in the previous plan is the greater of 1) 20% of your last 12 months of earnable salary; or 2) 20% of your final average salary (FAS) times the amount of service purchased.	Multiplying the member's current salary or FAS (whichever is greater) by a percentage rate set by the Retirement Board times the service credit to be purchased.

THE FOLLOWING SERVICE PURCHASE TYPES ARE CURRENTLY FREE OF CHARGE:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Free Military ORC Section 145.30	TP	Up to 10 years of free service credit if member left public employment for active duty in the armed forces. A minimum of one year of contributing OPERS service must have been established and no more than 3 months can elapse between the termination of the member's contributing service and the military entry date. Member must return to contributing status in one of Ohio's state retirement systems w/i 2 years after discharge and establish 1 year of service credit upon return to public employment.		no cost	no cost
OAC Section 145.3.28	CO	(same)		(same)	(same)
n/a	MD	n/a		n/a	n/a
Workers' Compensation ORC Section 145.01	TP	Members are eligible to claim service credit for any period during which they were off the payroll due to an injury and received a weekly award through Workers' Compensation. A maximum of 3 such years may be claimed. The claim number and a record of the BWC time must be submitted.		no cost	no cost
"	CO	(same)		"	"
n/a	MD	n/a		n/a	n/a
Optional Service (prior to existence of OPERS) ORC Section 145.01(E)	TP	A member of OPERS may obtain credit for service performed as a public employee prior to January 1, 1935.		no cost	no cost
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a

SERVICE PURCHASES WHICH REQUIRE FURTHER REVIEW:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Restoration of OPERS Withdrawn Service Credit ORC Section 145.31	TP	After returning to public employment for at least 18 months in a job covered by one of Ohio's state retirement systems, a member is eligible to redeposit any previously refunded contributions.		The cost of redeposit will include the amount refunded plus 6% interest from the date of refund to the date of payment.	A charge equal to the current member contribution rate times the current pay (or FAS if greater), times the number of years of service to be restored.
OAC Section 145.3.22	CO	(same)		(same)	(same)
n/a	MD	n/a		n/a	n/a
Restoration of OPERS Withdrawn Service Credit with SERS/STRS ORC Section 145.312	TP	A member of SERS/STRS with at least 18 contributing months of service credit in one of Ohio's state retirement system, may purchase previously refunded service from OPERS by payroll deduction in SERS/STRS.		The cost of redeposit by payroll deduction, is the amount refunded from OPERS plus interest as determined by OPERS.	A charge equal to the current member contribution rate times the current pay (or FAS if greater), times the number of years of service to be restored.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a
Plan Change - Restore Balance Transferred at Plan Inception ORC Section 145.814 OAC Section 145.2.18	CO to TP	Service established in the traditional pension plan that was balance transferred to either the CO or MD Plan by members who had less than 5 years of service on December 31, 2002. Members who elect to change their plan selection back to the Traditional Pension Plan are eligible to restore this service.		The cost to restore the service will include the amount balance transferred plus 6% interest from the date of the balance transfer to the date of payment.	A charge equal to the current member contribution rate times the current pay (or FAS if greater), times the number of years of service to be restored.
OAC Section 145.2.18	MD to TP	(same)		(same)	A charge equal to the current member contribution rate times the current pay (or FAS if greater), times the number of years of service to be restored.
Purchase of Service Credit by Dependents ORC 145.452	TP	Upon death of member, surviving spouse or dependents may purchase any service credit the member would have been eligible to purchase.		Cost to the surviving spouse or dependent is the same cost calculation applicable to the member according to the type of service the member was eligible to purchase.	Discontinue allowing a non-spouse dependent to purchase service on behalf of the member. Allow a surviving spouse the ability to complete a service purchase the member had begun prior to death.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a

NO CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Purchase/ Transfer of Ohio Police & Fire, Highway Patrol, City of Cincinnati Service. ORC Section 145.295/145.2910/ 145.2911/ 145.2912/ 145.2913	TP	Service credit may be granted by a direct transfer of contributions to an OPERS member who has contributions on deposit with, but is no longer contributing to Police & Fire, Highway Patrol, or the City of Cincinnati Retirement System. If the other retirement system contributions were refunded and the member is no longer contributing to the other retirement system, the service credit must be repurchased in OPERS.		Member and employer contributions on deposit with the other retirement system are transferred to OPERS with interest at the assumed actuarial rate. For contributions refunded at the other retirement system and redeposited at OPERS, the cost of the redeposit is the amount refunded from the other system plus interest as determined by the former retirement system. Upon redeposit, the other retirement system must transfer any employer contributions on deposit with interest at the assumed actuarial rate.	No change to current formula.
OAC Section 145.3.21	CO	(same)		(same)	(same)
n/a	MD	n/a		n/a	n/a
Purchase/ Transfer of OPERS Service to Ohio Police & Fire, Highway Patrol, City of Cincinnati ORC Section 145.295/145.2910/ 145.2911/ 145.2912/ 145.2913	TP	OPERS service may be transferred to Police and Fire, Highway Patrol, or the City of Cincinnati Retirement System provided the member is no longer contributing to OPERS. If OPERS contributions have been refunded, the member must redeposit the service with the other system.		Upon request of the member, OPERS will transfer member and employer contributions plus interest at the assumed actuarial rate. If OPERS contributions have been refunded, OPERS must transfer any employer contributions on deposit plus interest at the assumed actuarial rate upon redeposit with the other system.	No change to current formula.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a
Early Retirement Incentive Credit ORC Section 145.297 or 145.298	TP	An employer may adopt an early retirement incentive plan in order to purchase additional credit for eligible employees. The credit may allow the employee to retire earlier than expected or with a higher benefit and cannot exceed 5 years or 20% of the employee's total service credit.		The cost paid by the employer is the additional liability resulting from the amount of service purchased as determined by the OPERS actuary.	No change to current formula.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a

NO CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Interrupted Military Service ORC Section 145.302	TP	A member may purchase up to five years of Interrupted military service providing the member is working for a OPERS covered public employer, enters the military, and returns to the same public employer within three months of discharge.		The cost will be the employee contributions that would have been paid on the salary they would have earned had they not gone into the military. Interest will be added if not paid within the lesser of five years or a period which is three times the period being purchased beginning from the later of the members date of reemployment or October 29, 1996. The employer must also make the employer contributions on the earnable salary the member would have earned.	No change to current formula.
OAC Section 145.3.21	CO	(same)		(same)	(same)
OAC Section 145.3.81	MD	(same)		(same)	(same)
Restoration of SERS/STRS Withdrawn Service Credit ORC Section 145.311	TP	A member of OPERS with at least 18 contributing months of service credit in one of Ohio's state retirement system, may purchase previously refunded service from STRS/SERS by payroll deduction in OPERS.		The cost of redeposit by payroll deduction, is the amount refunded from STRS/SERS plus interest as determined by the former system.	No change to current formula.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a
Service Credit Associated with Joint Retirement ORC Section 145.37	TP	This type of credit represents contributions transferred to OPERS as a result of a joint retirement with SERS/STRS and includes service transferred as a University of Akron Law Enforcement Officer from SERS to OPERS.		Represents the member's contributions and a matching employer share equal to the member's contributions.	No change to current formula.
n/a	CO	n/a		n/a	n/a
n/a	MD	n/a		n/a	n/a
Unreported Public Service ORC Section 145.483	TP	An employer who failed to deduct retirement contributions from an employee during a period of employment for which contributions were required shall pay to the Retirement System the employee and employer contributions which should have been reported.		The cost shall be the employee and employer contributions which should have been reported based on the contribution rate in effect during the period of service plus 6% simple interest from the beginning year of service to the end of the year preceding the date of payment.	No change to current formula.
"	CO	(same)		(same)	(same)
"	MD	(same)		(same)	(same)

NO CHANGES ARE PROPOSED FOR THE FOLLOWING SERVICE PURCHASE TYPES:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Balance Transfer - at Plan inception ORC 145.814(C)(2) CO Plan Document Article II Section 2.02	TP to CO	Members who has less than five years of total service credit as of December 31, 2002 has a 180 day enrollment period that ended June 30, 2003 to select an OPERS retirement plan. This credit represents service that was established in the traditional plan prior to January 1, 2003 that was balance transferred at the member's request to the retirement plan elected.		At member's request, service credit from the Traditional Plan was transferred to the Combined Plan at plan inception.	n/a
MD Plan Document Article II Section 2.02	TP to MD	(same)		At member's request, service credit from the Traditional Plan was transferred to the Member- Directed Plan at plan inception.	n/a

THE FOLLOWING SERVICE PURCHASE TYPES WOULD BECOME OBSOLETE:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Service Excluded from Membership ORC 145.02	TP	A) An employee who, prior to 8/20/76, had public service but was excluded from membership in OPERS because they were receiving benefits from a municipal retirement system, may purchase this service. B) An employee who, prior to 11/21/69, had public service but was excluded from membership in OPERS because the employee was receiving benefits from a police or fire relief pension fund, the Ohio Police and Fire Fund, or the State Highway Patrol Pension Fund may purchase this service.		A) Member contribution rate at the time of payment, times the earnable salary the member earned during such period, plus interest compounded annually at a rate determined by the Board. The member must also pay an equal amount into the employer fund. B) Retirement contributions the employee would have paid into OPERS during the period of service at the member contribution rate in effect during such period, plus interest compounded annually at a rate established by the Board. An equal amount must be paid by the member into the employer fund.	n/a
	CO	n/a		n/a	n/a
	MD	n/a		n/a	n/a
Service for Employment at Municipal Zoo (expired 11/18/88) ORC 145.292	TP	Within 90 days after 07/20/88, member may purchase credit for previous employment not covered by the retirement system as an employee of a municipal zoo.		An amount determined by multiplying the member's salary by the employee contribution rate then in effect, plus an amount determined by multiplying the member's salary by the employer contribution rate then in effect.	n/a
	CO	n/a		n/a	
	MD	n/a		n/a	n/a
Service under US Employment Service ORC 145.42	TP	Members on a leave of absence pursuant to section 145.41, or who are employees of the United States employment service at the time of the return of these functions to the state, or who reach retirement age prior to such time, are eligible to purchase service with the United States employment service.		The cost is the member contribution rate in effect at the time of payment multiplied by the member's earnable salary for the period of service, plus interest on such payment compounded annually at a rate determined by the Board.	n/a
	CO	n/a		n/a	n/a
	MD	n/a		n/a	n/a
Retroactive Service ORC Section 145.44	TP	Member of OPERS may purchase service credit for service prior to the date membership was established, who were employed by a governmental unit having its own retirement system. A member is ineligible for this service if they have received or are eligible for benefits from the retirement system of the governmental unit.		An amount equal to the contribution rate in effect during the period of service, multiplied by the full salary during all periods of non-contributing service, plus 6% interest compounded annually from the beginning date of service to be purchased to the date of payment. The governmental unit also has to pay the full liability as determined by the OPERS actuary, before the member is eligible to obtain the service credit.	n/a
	OAC Section 145.3.21	CO	(same)	(same, but actuarial cost is based upon 1.00% / 1.25% multiplier).	n/a

n/a	MD	n/a		n/a	n/a

THE FOLLOWING SERVICE PURCHASE TYPES WOULD BECOME OBSOLETE:

Payment Type	Plan *	Definition/Eligibility	OPERS' Subsidy % per GRS Study**	Current Calculation	Proposed Calculation
Leave of Absence (no interest) ORC Section 145.47	TP	A member may purchase up to one year of credit who was off the payroll and on an authorized leave of absence for less than one year and purchases that service within a 12 month period from the beginning date of the leave.	61.4%	The cost is calculated by multiplying the member's earnable salary that would have been received during the leave by the contribution rate in effect at the time of payment. There is no additional interest charge.	All Leave of Absence would be calculated as outlined under "Leave of Absence (Interest) - see first page
ORC Section 145.47 OAC 145.3.21	CO	(same)		(same)	All Leave of Absence would be calculated as outlined under "Leave of Absence (Interest) - see first page
ORC Section 145.47	MD	n/a		n/a	n/a

* OPERS offers 3 Retirement Plans as follows: each listed here in the second column as TP, CO, and MD.

- TP Plan is the "Traditional Pension Plan" or defined benefit plan, established under sections 145.01 to 145.79 of the Revised Code.
- CO Plan is the "Combined Plan" which includes a defined benefit and defined contribution component, established under section 145.81 of the Revised Code.
- MD Plan is the "Member-Directed Plan" or defined contribution plan, established under section 145.81 of the Revised Code and pursuant to rules and plan documents.

**OPERS Subsidy is defined as the total additional liability in terms of 20% of pay per year of service.



Ohio Public Employees Retirement System

277 East Town Street Columbus, Ohio 43215-4642 1-800-222-PERS (7377) www.opers.org

December 14, 2005

Mr. Aristotle Hutras, Executive Director
Ohio Retirement Study Council
88 E. Broad Street, Suite 1175
Columbus, OH 43215

RE: Actuarial review of OPERS Service Credit Purchases

Dear Mr. Hutras:

In response to your letter dated September 28, 2005, please find enclosed a report prepared by the OPERS actuary, Gabriel, Roeder, Smith & Co., that includes the results of an actuarial review of the cost of certain service credit purchases. We have provided the enclosed copies for your staff and for distribution to the members of the ORSC.

In your letter, you requested that the OPERS actuary examine the cost of certain types of service credit and below is a chart that summarizes the contents of the report:

<i>Type of service credit</i>	<i>Current cost formula</i>	<i>Percentage of additional liability paid by member</i>	<i>Percentage of additional liability paid by OPERS</i>
<i>Denied compensation for elected officials (R.C. 145.01(Y))</i>	Employee contributions on the denied compensation. Interest is added to partial payments.	105.7%	<5.7%>
<i>Prior service for elected officials (R.C. 145.20)</i>	Employee contribution rate at time of payment multiplied by salary for period of service, plus interest from beginning date of service to date of payment. Matching amount billed to employer.	18.7%	62.6% (OPERS) 18.7% (Employer)
<i>Additional 35% credit for elected or appointed officials (R.C. 145.201)</i>	Employee contribution rate at time payment multiplied by period of full-time service multiplied by two.	29.3%	70.7%
<i>Exempt service (R.C. 145.28)</i>	The member's salary for the 12 months immediately preceding the payment multiplied by a percentage rate determined by the OPERS Board, currently 20%.	86.6%	13.4%

<i>Type of service credit</i>	<i>Current cost formula</i>	<i>Percentage of additional liability paid by member</i>	<i>Percentage of additional liability paid by OPERS</i>
<i>Prior service (R.C. 145.29)</i>	Employee contribution rate at time of payment multiplied by salary for period of service, plus interest from beginning date of service to date of payment.	8.9%	91.1%
<i>Leave of absence (R.C. 145.291)</i>	Employee contribution rate at time of payment multiplied by the member's salary at the time public service was interrupted, plus interest from date of leave to date of payment.	43.1%	56.9%
<i>Out of state/ federal/municipal service (R.C. 145.293)</i>	Employee contribution for first year of full-time Ohio service following the service to be purchased multiplied by the period of service to be purchased, plus interest from date of membership established to date of payment.	47.1%	52.9%
<i>Military service— purchase (R.C. 145.301)</i>	Amount determined by OPERS Board that is not less than 50% of the additional liability— calculated by multiplying the member's salary for the 12 months immediately preceding the payment multiplied by a percentage rate determined by the OPERS Board, currently 10%.	49.8%	50.2%
<i>Leave of absence (<1 year) (R.C. 145.47)</i>	Employee contribution rate at time of payment multiplied by the member's salary at the time public service was interrupted.	38.6%	64.1%

The data upon which this study was based is described in the attached report (Section C) and a more detailed analysis of the information summarized above may be found in Sections D and E of the report.

In addition to the information summarized above, you requested that the OPERS actuary study a proposal under which a member of the OPERS Law Enforcement (LE) Division would be permitted to pay to convert the member's non-LE service credit in OPERS to LE service credit. This would result in the converted service credit being treated as LE service for the purposes of determining eligibility for and in calculating LE retirement benefits payable at age 48 or 52 (depending on primary duties). The cost of this service purchase (or "conversion") has been proposed as the sum of the following: (1) the difference between the employee contribution rate for the non-LE service and the employee contribution rate for LE service for the period of service; (2) the difference between the employer contribution rate for non-LE service and the employer contribution rate for LE service for the period of service; and (3) compound interest. The attached report (Section F) summarizes the actuary's findings on the cost of this

Mr. Aristotle Hutras

December 14, 2005

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proposal based on the percentage of LE members who might utilize the ability to convert their non-LE credit. As you can see, depending on the number of LE members who might utilize such a provision, it is clear that this proposal would increase the amortization period for unfunded actuarial accrued liabilities for the LE Division beyond the number of years required by Ohio law.

If you have any questions, please feel free to contact me.

Sincerely,

Thomas L. Sherman
Government Relations Officer

TLS/lv
Enclosures

To: Ms. Deborah McCarthy, Assistant Government Relations Officer
Public Employees Retirement System of Ohio

From: Norman L. Jones, FSA and Brian B. Murphy, FSA

Date: December 13, 2005

Subject: Ohio Retirement Study Council Actuarial Review of Service Credit Purchases

A. INTRODUCTION

This memorandum presents the findings of our analysis of service credit purchases in the Ohio Public Employees Retirement System (OPERS). The analysis was performed for the Ohio Retirement Study Council (ORSC) actuarial review of service credit purchases.

B. CURRENT SERVICE PURCHASE COST FORMULAS

Presented below are the sections of the Revised Code (R.C.) that were analyzed:

<i>R.C. Section</i>	<i>Brief Description of Service Credit</i>	<i>Current Purchase Price Per Year</i>
145.01(Y)	Denied compensation for elected officials	Member contributions on denied compensation + Interest
145.20	Prior service for elected officials	(Member rate in effect at time of payment x Salary for period of service) + (Interest for service between 1/1/1935 and date membership is established)
145.201	Additional 35% credit for elected or appointed officials	Member rate in effect at time of payment x Salary for period of service x 2
145.28	Purchase of service credit for period of exemption	Member salary for 12 months preceding purchase x Rate established by Board, currently 20%
145.29	Prior service	(Member rate in effect at time of payment x Salary for period of service) + (Interest for service between 1/1/1935 and date membership is established)
145.291	Leave of absence	(Member rate in effect at time of payment x Salary prior to leave) + Interest
145.293(A)(1) and (2)	Out of state/federal/municipal service	(Member contribution for first year of full-time Ohio service following termination of service to be purchased) + Interest
145.301(A)(B) and (D)	Military service—purchase	Determined by the OPERS Board, but not less than 50% of the additional resulting liability. Currently, 10% of pay per year of service.
145.47 (leave of absence only)	Leave of absence (<1 year)	Member contribution due

C. SUMMARY OF DATA RECEIVED

In order to perform the analysis of service credit purchases, 77 service purchase cases were received from OPERS staff. Of these 77 cases, 24 service purchase cases were from calendar year 2005 and the remainder were from calendar years 2001 through 2004. A summary of the data received is presented below:

R.C. Section	Number of Service Purchase Cases Reviewed	Averages			
		Age	Salary	Service Before Purchase	Service Purchased
145.01(Y)	1	51.5 yrs.	\$ 1,200	3.7 yrs.	0.7 yrs.
145.2	10	54.7	23,070	10.7	4.5
145.201	10	56.5	33,107	20.7	5.4
145.28	10	50.4	42,824	16.4	3.6
145.29	6	55.5	29,551	13.0	2.7
145.291	10	46.0	46,916	19.7	0.7
145.293(A)(1) and (2)	10	52.3	66,925	14.5	4.0
145.301(A)(B) and (D)	10	53.9	53,876	15.4	3.7
145.47 (leave of absence only)	10	47.7	43,163	11.2	0.3

D. RESULTS OF SERVICE PURCHASE ANALYSIS

Presented below are the results of the service purchase analysis. As a matter of policy, OPERS presently defines the Total Additional Liability in terms of 20% of pay per year of service. The figures in the chart below were developed based upon that policy. The actual effect of a service purchase on OPERS can vary widely based upon the individual's service credit before the service purchase, the sex of the individual, and in most cases, the age of the individual at time of purchase.

R.C. Section	Total Additional Liability (in actual dollars)	Allocation Between Member and OPERS			
		Member Cost (in actual dollars)	OPERS Cost (in actual dollars)	Percentage Paid By Member	Percentage Paid By OPERS
145.01(Y)	\$ 175	\$ 185	\$ (10)	105.7%	-5.7%
145.20	153,706	28,710	124,996	18.7%	81.3%
145.201	314,659	92,156	222,503	29.3%	70.7%
145.28	234,537	203,017	31,520	86.6%	13.4%
145.29	81,547	7,257	74,290	8.9%	91.1%
145.291	63,977	27,563	36,414	43.1%	56.9%
145.293(A)(1) and (2)	455,697	214,430	241,267	47.1%	52.9%
145.301(A)(B) and (D)	410,990	204,719	206,271	49.8%	50.2%
145.47 (leave of absence only)	29,313	11,307	18,006	38.6%	61.4%
Totals	\$ 1,744,600	\$ 789,344	\$ 955,257	45.2%	54.8%

E. COMMENTS AND RECOMMENDATIONS ON SERVICE PURCHASE COST FORMULAS

There are competing objectives involved in determining the definition of “additional liability.” Among these factors are: individual equity, ease of explanation and computation, compliance with OPERS and federal statutes, cost to OPERS, public policy, etc. OPERS’ present definition of “additional liability” is based on ease of explanation and computation, and is only approximately related to the actual cost to OPERS, as would be measured by an actuarial valuation.

Another important issue that arises in determining the cost of service purchase to a member is whether or not the member will be charged for “promoting past service.” A different way of expressing this is:

Should an individual be charged for the fact that his/her benefit may be payable at an earlier time due to the fact they become eligible to retire at an earlier age? The benefit that is considered for this determination is based upon service accrued at the time of purchase.

For example, consider a member who is age 50 with 28 years of service who purchases 2 years of service credit. Prior to the service purchase, the member would have been eligible to retire at age 52 (with 30 years of service). After the service purchase the member is eligible to retire at age 50. The question that arises is whether or not the member should be charged for the fact that his/her benefit based upon the 28 years of service is potentially payable 2 years earlier. The present policy regarding “additional liability” does not reflect the cost of “promotion of past service credit.”

As part of this service purchase study, we recommend that OPERS review the policy decisions with respect to whether members should be charged for the “promotion of past service” for the relevant R.C. sections. In addition, we suggest a review of whether to continue the practice of using a flat percentage of pay as the definition of “additional liability.” Finally, if use of a flat percentage is considered to be the best ongoing policy, the level of such flat percentage should also be reevaluated.

F. ADDITIONAL REQUESTED LAW GROUP ANALYSIS

In addition to the service purchase analysis, we were also requested to review the following:

A proposal that would allow Law members to convert their non-Law service (i.e. State or Local service) to Law service. The formula proposed would require the member to pay the difference between the employer and employee contribution rates for the non-Law service and the employer and employee contribution rates for the Law service, plus compound interest.

Presented below is a summary of the active data as of December 31, 2004 that was used in the analysis:

	Number of Active Members	Averages				
		Age	Salary	Service		
				Total	Law	Non-Law
Public Safety	113	37.4 yrs.	\$ 4,766,921	8.3 yrs.	6.5 yrs.	1.8 yrs.
Law Enforcement	8,060	39.7	387,904,753	12.4	10.2	2.2
Totals	8,173	39.7 yrs.	\$ 392,671,674	12.4 yrs.	10.2 yrs.	2.2 yrs.

The results of the analysis are sensitive to the proportion of the eligible membership utilizing the proposed provision. Presented below are estimated results, as of December 31, 2004, assuming that 25%, 50%, 75% and 100% of the eligible membership utilize the proposed provision (\$ in Millions):

	12/31/2004 Results	% of Members Utilizing Proposed Provision			
		25%	50%	75%	100%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 328.6	\$ 344.8	\$361.0	\$377.2	\$393.4
Increase in UAAL		16.2	32.4	48.6	64.8
Amortization Years	41	46	53	63	77
Increase in Amortization Years		5	12	22	36