Multiple Agency Fiscal Note Summary

Bill Number: 1742 HB	**Title:** Alternate early retirement

Estimated Cash Receipts

NONE

Estimated Expenditures

Agency Name	2011-13			2013-15			2015-17		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total
Office of the State Actuary	.0	0	0	.0	(11,600,000)	(15,300,000)	.0	(24,900,000)	(33,100,000)
Department of Retirement Systems	.1	0	45,112	.0	0	0	.0	0	0
Total	**0.1**	**$0**	**$45,112**	**0.0**	**$(11,600,000)**	**$(15,300,000)**	**0.0**	**$(24,900,000)**	**$(33,100,000)**

Estimated Capital Budget Impact

NONE

Prepared by: Jane Sakson, OFM	**Phone:** 360-902-0549	**Date Published:** Final

* See Office of the Administrator for the Courts judicial fiscal note

** See local government fiscal note

FNPID 28047

Individual State Agency Fiscal Note

Bill Number: 1742 HB	Title: Alternate early retirement	Agency: 035-Office of State Actuary

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

		FY 2012	FY 2013	2011-13	2013-15	2015-17
Account						
All Other Funds-State	000-1	0	0	0	(3,700,000)	(8,200,000)
General Fund-State	001-1	0	0	0	(11,600,000)	(24,900,000)
	Total $	0	0	0	(15,300,000)	(33,100,000)

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:	David Pringle	Phone: 360-786-7310	Date: 02/02/2011
Agency Preparation:	Darren Painter	Phone: 360-786-6155	Date: 02/07/2011
Agency Approval:	Matthew M. Smith	Phone: 360-786-6140	Date: 02/07/2011
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 02/07/2011

Request # -1

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

NONE

Part IV: Capital Budget Impact

NONE

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

ACTUARY'S FISCAL NOTE

RESPONDING AGENCY:	CODE:	DATE:	BILL NUMBER:
Office of the State Actuary	**035**	**2/7/11**	**HB 1742**

WHAT THE READER SHOULD KNOW

The Office of the State Actuary ("we") prepared this fiscal note based on our understanding of the bill as of the date shown above. We intend this fiscal note to be used by the Legislature during the 2011 Legislative Session only.

We advise readers of this fiscal note to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. Please read the analysis shown in this fiscal note as a whole. Distribution of, or reliance on, only parts of this fiscal note could result in its misuse, and may mislead others.

SUMMARY OF RESULTS

This bill ends subsidized, alternate early retirement for newly hired members in Plans 2/3 of the Public Employees', Teachers', and School Employees' retirement systems. This bill doesn't change the benefits or liabilities of the current Plans 2/3 members from these systems, but would change future contribution levels due to changes in retirement benefits for newly hired members.

Impact on Pension Liability – Current Members			
(Dollars in Millions)	**Current**	**Increase**	**Total**
Today's Value of All Future Pensions	$74,789	$0.0	$74,789
Earned Pensions Not Covered by Today's Assets	$5,773	$0.0	$5,773

Impact on Contribution Rates (Effective 7/1/2011)			
2011-2013 State Budget	**PERS**	**TRS**	**SERS**
Employee (Plan 2)	0.00%	0.00%	0.00%
Employer			
Current Annual Cost	0.00%	0.00%	0.00%
Plan 1 Past Cost	0.00%	0.00%	0.00%
Total	0.00%	0.00%	0.00%

Budget Impacts			
(Dollars in Millions)	**2011-2013**	**2013-2015**	**25-Year**
General Fund-State	$0.0	($11.6)	($943.5)
Total Employer	$0.0	($27.1)	($2,311.2)

Note: We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

See the Actuarial Results section of this fiscal note for additional detail.

WHAT IS THE PROPOSED CHANGE?

Summary Of Change

This bill impacts the following systems:

- PERS Plans 2/3.
- TRS Plans 2/3.
- SERS Plans 2/3.

This bill ends alternate early retirement eligibility for Plan 2/3 members of PERS, TRS, and SERS first hired on or after July 1, 2011. Under this bill, new hires who wish to retire before age 65 would be required to take an actuarially reduced early retirement benefit. Alternate early retirement is a subsidized form of early retirement that provides larger benefits than actuarially reduced early retirement.

This bill does not change early retirement benefits for members first hired before July 1, 2011. These members would still be eligible under this bill for subsidized early retirement using the alternate retirement provisions.

Effective Date: July 1, 2011.

What Is The Current Situation?

Currently, the PERS, TRS, and SERS Plans 2/3 provide for unreduced normal retirement benefits, actuarially reduced early retirement benefits, or reduced alternate early retirement benefits.

Normal retirement benefits are available to members who have attained 65 years of age and are vested in the plan. Vesting requires five years of service credit in Plan 2 and either five or ten years of service credit in Plan 3, depending on age. Pensions are not reduced for normal retirement.

Early retirement benefits are available to members who have attained age 55 and meet the minimum service requirements of twenty years in Plan 2 or ten years in Plan 3. Under early retirement, pensions are actuarially reduced for each year the member retires prior to attaining age 65.

Alternate early retirement benefits are available to members who have attained age 55 and have at least 30 years of service credit. Pension are reduced for alternate early retirement, however, the reduction is less than under early retirement. Alternate early retirement is considered a subsidized form of early retirement because benefits are not actuarially reduced. Statute provides two different sets of alternate early retirement provisions: 2000 Early Retirement Factors (ERFs) and 2008 ERFs. These provisions differ in pension reductions and retire-rehire restrictions. Eligible members may choose to retire under either provision as follows:

- 2000 ERFs: Eligible members may retire and receive a pension reduced by 3 percent for each year the member retires prior to attaining age 65. Members retiring under this provision may return to work in an eligible position for a covered public employer prior to age 65 and, subject to certain restrictions, still receive their pension.
- 2008 ERFs: Eligible members may retire with unreduced pensions beginning at age 62. Members retiring between ages 55 and 62 have their pension reduced by a specified percentage that is less than the reduction provided under the 2000 ERFs. Members retiring under this provision are generally prohibited from receiving their pension if they return to work in any capacity for a covered public employer before they reach age 65.

Who Is Impacted And How?

This bill will impact the retirement benefits for all future members of PERS, TRS, and SERS. This bill does not impact the benefits of the current members of these systems.

This bill impacts employers of PERS, TRS, and SERS and current PERS, TRS, and SERS Plan 2 active members through decreased contribution rates in the future. Additionally, this bill will not affect member contribution rates in Plan 3 since Plan 3 members do not contribute to their employer-provided defined benefit.

Upon ERF eligibility, a PERS, TRS, and SERS employee hired after July 1, 2011, will not have the opportunity to elect to retire early with a subsidized, alternate early retirement benefit. If they retire before age 65, the member will have their pension actuarially reduced.

For example, consider a 60-year old member in Plan 2 with 30 years of service and an average final salary of $50,000. The reduction factor for this member under current law would be 0.95 resulting in an initial annual benefit of $28,500. The reduction factor under this bill would be 0.588 resulting in an initial annual benefit of $17,640.

WHY THIS BILL HAS A SAVINGS AND WHO RECEIVES IT

Why This Bill Has A Savings

This bill has a savings because it reduces early retirement benefits for any member entering PERS, TRS, or SERS after July 1, 2011. The reduction in retirement benefits will result in less future liabilities for PERS, TRS, and SERS members hired after July 1, 2011, and lower system contribution rates in the future.

Please see Actuarial Results Section for more detail.

Who Will Receive These Savings?

Each system will absorb the decrease in liability that results from this bill under their normal cost-sharing formulas:

- Plan 2: 50 percent member and 50 percent employer.
- Plan 3: 100 percent employer.

HOW WE VALUED THESE COSTS

Assumptions We Made

We assumed a change in retirement behavior for newly hired members after July 1, 2011, due to the removal of the subsidized, alternate early retirement benefits. We assumed these members will work longer than current members who have access to subsidized early retirement. To estimate this change in behavior we set the retirement rates for members with at least 30 years of service equal to the retirement rates we currently assume for members with 1-29 years of service. Members with less than 30 years of service do not have access to subsidized early retirement under current law.

Because this bill does not change current funding policy or establish new plans within the affected systems, we assumed that members hired after July 1, 2011, will join either Plan 2 or Plan 3 and their assets and liabilities will be commingled with current members of the affected Plans 2/3. As a result, a single employer and Plan 2 member contribution rate will continue to apply in each affected Plan 2/3.

Please see Appendix A for more detail on the assumptions we made.

How We Applied These Assumptions

Our actuarial valuation model projects benefits for current members only. We use our projection system to estimate the results of future actuarial valuations by including the impacts of future assumed new entrants. For this pricing, we removed subsidized early retirement benefits for future entrants into PERS, TRS, and SERS, assumed later retirement ages for these members, and recorded the projected contribution rates. We compared the results to our projections under current law and current assumptions. The difference represents the expected savings from this proposal. See How The Results Change When The Assumptions Change for information on the sensitivity of our cost estimates to the assumptions we selected.

Otherwise, we developed these costs using the same methods as disclosed in the June 30, 2009 Actuarial Valuation Report (AVR).

ACTUARIAL RESULTS

How The Liabilities Changed

This bill does not impact the liabilities for the current active members of PERS, TRS, and SERS. However, this bill will decrease future liabilities since PERS, TRS, and SERS members hired after July 1, 2011, will not receive a subsidized, early retirement benefit.

Impact on Pension Liability – Current Members			
(Dollars in Millions)	**Current**	**Increase**	**Total**
Actuarial Present Value of Projected Benefits			
(The Value of the Total Commitment to all Current Members)			
PERS 1	$14,215	$0.0	$14,215
PERS 2/3	24,472	0.0	24,472
PERS Total	**$38,687**	**$0.0**	**$38,687**
TRS 1	$10,956	$0.0	$10,956
TRS 2/3	8,661	0.0	8,661
TRS Total	**$19,617**	**$0.0**	**$19,617**
SERS 2/3	**$3,260**	**$0.0**	**$3,260**
Unfunded Actuarial Accrued Liability			
*(The Portion of the Plan 1 Liability that is Amortized According to Funding Policy)**			
PERS 1	**$4,208**	**$0.0**	**$4,208**
TRS 1	**$2,676**	**$0.0**	**$2,676**
Unfunded PUC Liability			
(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)			
PERS 1	$4,169	$0	$4,169
PERS 2/3	(2,560)	0.0	(2,560)
PERS Total	**$1,609**	**$0**	**$1,609**
TRS 1	$2,692	$0	$2,692
TRS 2/3	(947)	0.0	(947)
TRS Total	**$1,745**	**$0**	**$1,745**
SERS 2/3	**($341)**	**$0**	**($341)**

Note: Totals may not agree due to rounding.

** PERS 1 and TRS 1 are amortized over a ten-year period.*

How The Present Value of Future Salaries (PVFS) Changed

This proposal does not change the PVFS of the current members of PERS, TRS, and SERS so there is no impact on the actuarial funding of these plans due to the PVFS.

How Contribution Rates Changed

2011-2036 Employer Normal Cost Contribution Rate Changes			
System/Plan	**PERS**	**TRS**	**SERS**
Maximum Decrease	(0.35%)	(0.49%)	(0.18%)
Average Decrease	(0.24%)	(0.34%)	(0.13%)
Minimum Decrease	0.00%	0.00%	0.00%
2011-2036 Employee Normal Cost Contribution Rate Changes			
System/Plan	**PERS**	**TRS**	**SERS**
Maximum Decrease	(0.35%)	(0.49%)	(0.18%)
Average Decrease	(0.24%)	(0.34%)	(0.13%)
Minimum Decrease	0.00%	0.00%	0.00%

This bill does not impact the contribution rates for the current active members of PERS, TRS, and SERS in the 2011-13 Biennium. But this bill does decrease contribution rates for the Plans 2/3 of these systems in future biennia due to changes in retirement benefits for future new hires. We applied these rate changes to future projected salaries to measure the budget changes in future biennia.

How This Impacts Budgets And Employees

Budget Impacts				
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**Total**
2011-2013				
General Fund	$0.0	$0.0	$0.0	$0.0
Non-General Fund	0.0	0.0	0.0	0.0
Total State	**$0.0**	**$0.0**	**$0.0**	**$0.0**
Local Government	0.0	0.0	0.0	0.0
Total Employer	**$0.0**	**$0.0**	**$0.0**	**$0.0**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2013-2015				
General Fund	($2.6)	($8.5)	($0.5)	($11.6)
Non-General Fund	(3.7)	0.0	0.0	(3.7)
Total State	**($6.4)**	**($8.5)**	**($0.5)**	**($15.3)**
Local Government	(6.8)	(4.3)	(0.6)	(11.7)
Total Employer	**($13.2)**	**($12.8)**	**($1.2)**	**($27.1)**
Total Employee	**($10.0)**	**($3.4)**	**($0.5)**	**($13.9)**
2011-2036				
General Fund	($243.0)	($653.2)	($47.4)	($943.5)
Non-General Fund	(346.4)	0.0	0.0	(346.4)
Total State	**($589.4)**	**($653.2)**	**($47.4)**	**($1,289.9)**
Local Government	(630.4)	(332.0)	(58.9)	(1,021.3)
Total Employer	**($1,219.8)**	**($985.2)**	**($106.3)**	**($2,311.2)**
Total Employee	**($847.5)**	**($485.6)**	**($64.4)**	**($1,397.4)**

Note: Totals may not agree due to rounding. We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

The analysis of this bill does not consider any other proposed changes to the systems. The combined effect of several changes to the systems could exceed the sum of each proposed change considered individually.

As with the costs developed in the actuarial valuation, the emerging costs of the systems will vary from those presented in the AVR or this fiscal note to the extent that actual experience differs from the actuarial assumptions.

How the Risk Measures Changed

This bill will affect the overall risk and affordability of the pension systems as shown below. We see marginal improvements in the affordability measures because of the lower long-term cost of the open plans. However, since it will take up to 30 years for this savings to emerge, the affordability and risk measures are not affected significantly. The largest risk factors typically take place 10 to 15 years from now (when Plan 1 costs could potentially reach their highest levels) and remain relatively unaffected by this proposed plan change.

On the other hand, the probability of open plan pay-go and the probability of a funded status under 60 percent remain relatively constant. This occurs because with the lower benefits will come lower contribution rates. On a relative basis, this means the plans will continue to be funded at about the same level. However, if the open plans run out of assets, the pay-go costs would be less.

For more detail please see Appendix B. In the appendix we graphically show the lower long-term costs of the retirement systems under various economic scenarios. We also further explain why the risk measures are not significantly affected even though this is a significant change in Plan 2/3 benefits.

Pension Score Card	Current		This Bill	
Category *(Dollars in Billions)*	**Value**	**Score**	**Value**	**Score**
Affordability				
Chance Pensions will Consume More than 8% of GF-S[1]	18%	37	16%	43
5% Chance GF-S[1] Consumption will Exceed	9.9%	39	9.6%	42
5% Chance Employer Contribution Rate will Exceed	20.1%	44	19.3%	47
Risk				
Chance of PERS 1, TRS 1 in Pay-Go[2]	41%	19	40%	20
Chance of Open Plan in Pay-Go[2]	13%	47	14%	46
5% Chance Annual Pay-Go Cost[3] in PERS 1, TRS 1 Exceed	$1.7	38	$1.7	38
5% Chance Annual Pay-Go Cost[3] in Open Plans Exceed	$4.0	11	$3.6	16
Chance of Total Funded Status Below 60%	34%	24	34%	24
Total Weighted Score		**33**		**36**

[1]Currently 2.7% of GF-S.
[2]When today's value of annual cost exceeds $50 million.
[3]Pay-Go costs on top of normal pension costs.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best-estimate assumptions selected for this pricing we varied our best-estimate assumption for changes in retirement behavior for members hired after July 1, 2011.

For this sensitivity analysis, we priced retirement rates below and above our best-estimate assumption. The table below compares the results of our best-estimate pricing to the results (1) when we assume the average affected member retires a year earlier than our best-estimate assumption ("member retires sooner") and (2) when we assume the average affected member retires a year later than our best-estimate assumption ("member retires later").

25-Year Budget Impact				
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**Total**
Higher Retirement Rates (Member Retires Sooner)				
General Fund	($220.6)	($682.0)	($45.4)	($948.0)
Non-General Fund	(314.4)	0.0	0.0	(314.4)
Total State	**($535.0)**	**($682.0)**	**($45.4)**	**($1,262.5)**
Local Government	(572.2)	(346.7)	(56.5)	(975.4)
Total Employer	**($1,107.2)**	**($1,028.7)**	**($101.9)**	**($2,237.8)**
Best Estimate				
General Fund	($243.0)	($653.2)	($47.4)	($943.5)
Non-General Fund	(346.4)	0.0	0.0	(346.4)
Total State	**($589.4)**	**($653.2)**	**($47.4)**	**($1,289.9)**
Local Government	(630.4)	(332.0)	(58.9)	(1,021.3)
Total Employer	**($1,219.8)**	**($985.2)**	**($106.3)**	**($2,311.2)**
Lower Retirement Rates (Member Retires Later)				
General Fund	($289.9)	($700.6)	($63.4)	($1,054.0)
Non-General Fund	(413.4)	0.0	0.0	(413.4)
Total State	**($703.3)**	**($700.6)**	**($63.4)**	**($1,467.3)**
Local Government	(752.2)	(356.1)	(78.8)	(1,187.2)
Total Employer	**($1,455.5)**	**($1,056.7)**	**($142.3)**	**($2,654.5)**

Note: Totals may not agree due to rounding. We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

Please see Appendix A for the retirement rates we used in the sensitivity.

ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

1. The actuarial cost methods are appropriate for the purposes of this pricing exercise.
2. The actuarial assumptions used are appropriate for the purposes of this pricing exercise.
3. The data on which this fiscal note is based are sufficient and reliable for the purposes of this pricing exercise.
4. Use of another set of methods and assumptions may also be reasonable, and might produce different results.
5. We prepared this fiscal note for the Legislature during the 2011 Legislative Session.
6. We prepared this fiscal note and provided opinions in accordance with Washington State law and accepted actuarial standards of practice as of the date shown on page one of this fiscal note.

While this fiscal note is meant to be complete, the undersigned is available to provide extra advice and explanations as needed.

Matthew M. Smith, FCA, EA, MAAA
State Actuary

APPENDIX A – ASSUMPTIONS WE MADE

The tables below show the retirement rates we currently use and the retirement rates that we used for this pricing. The “higher rates” and “lower rates” reference the rates we used in the sensitivity analysis.

	PERS Male Retirement Rates					PERS Female Retirement Rates				
	Current		Best Estimate	Lower Rates	Higher Rates	Current		Best Estimate	Lower Rates	Higher Rates
Age	MS<30	MS>=30	MS<29 is equal to MS >= 30			MS<30	MS>=30	MS<29 is equal to MS >= 30		
55	0.03	0.13	0.03	0.02	0.04	0.03	0.14	0.03	0.02	0.04
56	0.03	0.12	0.03	0.02	0.04	0.03	0.12	0.03	0.02	0.04
57	0.03	0.13	0.03	0.02	0.04	0.03	0.13	0.03	0.02	0.04
58	0.07	0.14	0.07	0.06	0.09	0.03	0.13	0.03	0.02	0.04
59	0.07	0.18	0.07	0.06	0.09	0.03	0.28	0.03	0.02	0.04
60	0.09	0.14	0.09	0.07	0.12	0.09	0.15	0.09	0.07	0.12
61	0.09	0.22	0.09	0.07	0.12	0.12	0.20	0.12	0.10	0.16
62	0.25	0.33	0.25	0.20	0.33	0.22	0.29	0.22	0.17	0.30
63	0.20	0.25	0.20	0.16	0.27	0.20	0.25	0.20	0.16	0.27
64	0.55	0.60	0.55	0.44	0.73	0.55	0.60	0.55	0.44	0.74
65	0.45	0.45	0.45	0.36	0.60	0.45	0.45	0.45	0.36	0.61
66	0.26	0.26	0.26	0.21	0.35	0.25	0.25	0.25	0.20	0.34
67	0.20	0.20	0.20	0.16	0.27	0.22	0.22	0.22	0.17	0.30
68	0.20	0.20	0.20	0.16	0.27	0.23	0.23	0.23	0.18	0.31
69	0.22	0.22	0.22	0.18	0.29	0.21	0.21	0.21	0.17	0.28
70	0.20	0.20	0.20	0.16	0.27	0.23	0.23	0.23	0.18	0.31
71	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
72	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
73	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
74	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
75	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
76	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
77	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
78	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
79	0.20	0.20	0.20	0.16	0.27	0.20	0.20	0.20	0.16	0.27
80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

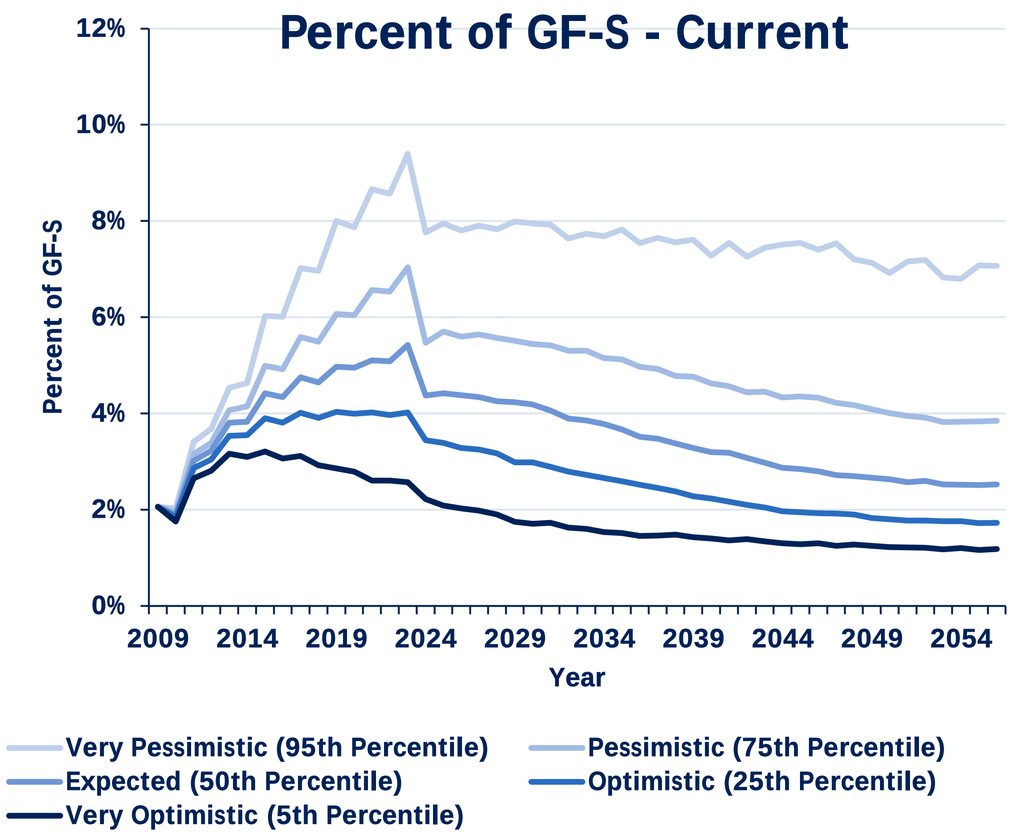
	SERS Male Retirement Rates					SERS Female Retirement Rates				
	Current		Best Estimate	Lower Rates	Higher Rates	Current		Best Estimate	Lower Rates	Higher Rates
Age	MS<30	MS>=30	MS<29 is equal to MS >= 30			MS<30	MS>=30	MS<29 is equal to MS >= 30		
55	0.03	0.13	0.03	0.02	0.04	0.03	0.14	0.03	0.02	0.04
56	0.03	0.12	0.03	0.02	0.04	0.03	0.12	0.03	0.02	0.04
57	0.03	0.13	0.03	0.02	0.04	0.03	0.13	0.03	0.02	0.04
58	0.07	0.14	0.07	0.06	0.09	0.03	0.13	0.03	0.02	0.04
59	0.07	0.18	0.07	0.06	0.09	0.03	0.28	0.03	0.02	0.04
60	0.09	0.14	0.09	0.07	0.12	0.09	0.15	0.09	0.07	0.12
61	0.09	0.22	0.09	0.07	0.12	0.12	0.20	0.12	0.10	0.16
62	0.25	0.33	0.25	0.20	0.33	0.22	0.29	0.22	0.18	0.29
63	0.20	0.25	0.20	0.16	0.26	0.20	0.25	0.20	0.16	0.27
64	0.50	0.55	0.50	0.40	0.66	0.50	0.55	0.50	0.40	0.67
65	0.45	0.45	0.45	0.36	0.59	0.45	0.45	0.45	0.36	0.60
66	0.26	0.26	0.26	0.21	0.34	0.25	0.25	0.25	0.20	0.33
67	0.20	0.20	0.20	0.16	0.26	0.22	0.22	0.22	0.18	0.29
68	0.20	0.20	0.20	0.16	0.26	0.23	0.23	0.23	0.18	0.31
69	0.22	0.22	0.22	0.18	0.29	0.21	0.21	0.21	0.17	0.28
70	0.20	0.20	0.20	0.16	0.26	0.23	0.23	0.23	0.18	0.31
71	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
72	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
73	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
74	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
75	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
76	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
77	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
78	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
79	0.20	0.20	0.20	0.16	0.26	0.20	0.20	0.20	0.16	0.27
80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

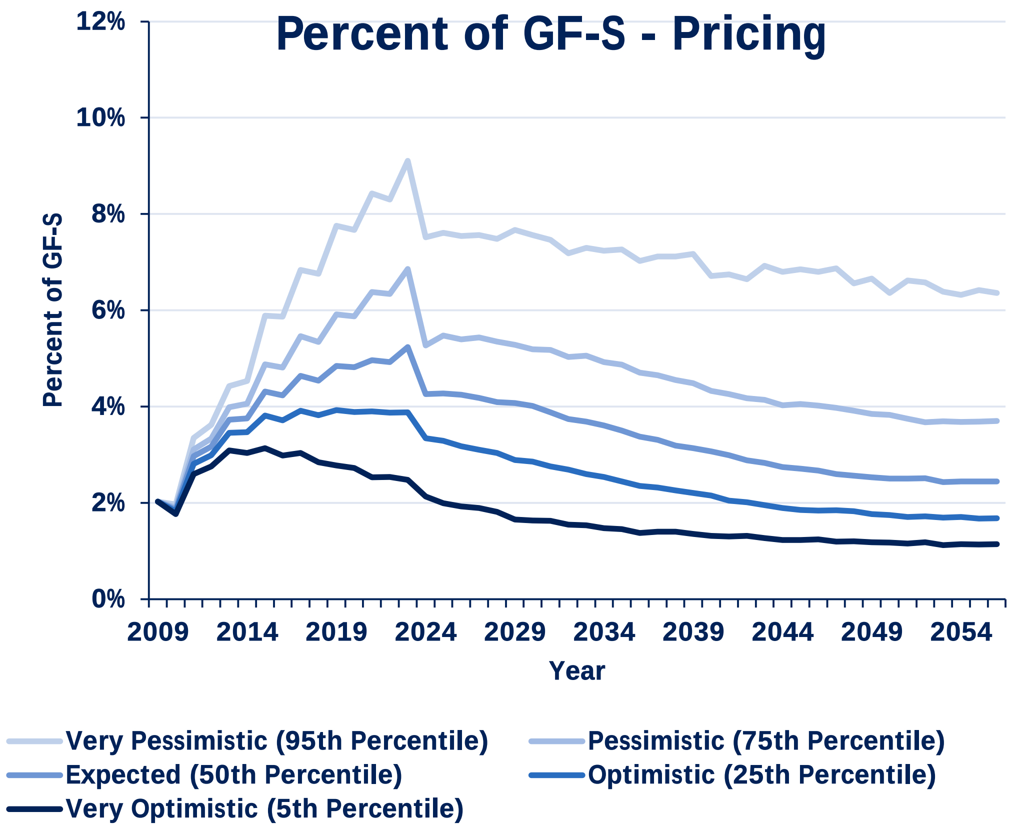
	TRS Male Retirement Rates						TRS Male Retirement Rates					
		Current		Best Estimate	Lower Rates	Higher Rates		Current		Best Estimate	Lower Rates	Higher Rates
				MS <29 is equal to MS>= 30						MS <29 is equal to MS>= 30		
Age	MS<30	MS=30	MS>30				MS<30	MS=30	MS>30			
55	0.03	0.24	0.15	0.03	0.02	0.04	0.02	0.21	0.13	0.02	0.02	0.03
56	0.03	0.23	0.17	0.03	0.02	0.04	0.03	0.23	0.15	0.03	0.02	0.04
57	0.03	0.25	0.18	0.03	0.02	0.04	0.07	0.25	0.16	0.07	0.05	0.09
58	0.03	0.31	0.20	0.03	0.02	0.04	0.07	0.27	0.18	0.07	0.05	0.09
59	0.03	0.38	0.21	0.03	0.02	0.04	0.07	0.29	0.24	0.07	0.05	0.09
60	0.11	0.41	0.23	0.11	0.08	0.16	0.09	0.32	0.21	0.09	0.07	0.12
61	0.11	0.48	0.24	0.11	0.08	0.16	0.12	0.43	0.24	0.12	0.09	0.16
62	0.25	0.60	0.40	0.25	0.19	0.35	0.25	0.60	0.35	0.25	0.20	0.34
63	0.20	0.50	0.30	0.20	0.15	0.28	0.25	0.50	0.30	0.25	0.20	0.34
64	0.50	0.55	0.55	0.50	0.38	0.71	0.45	0.50	0.50	0.45	0.35	0.61
65	0.50	0.50	0.50	0.50	0.38	0.71	0.45	0.45	0.45	0.45	0.35	0.61
66	0.40	0.40	0.40	0.40	0.30	0.57	0.30	0.30	0.30	0.30	0.23	0.41
67	0.35	0.35	0.35	0.35	0.26	0.50	0.25	0.25	0.25	0.25	0.20	0.34
68	0.30	0.30	0.30	0.30	0.23	0.42	0.25	0.25	0.25	0.25	0.20	0.34
69	0.30	0.30	0.30	0.30	0.23	0.42	0.40	0.40	0.40	0.40	0.31	0.54
70	0.30	0.30	0.30	0.30	0.23	0.42	0.25	0.25	0.25	0.25	0.20	0.34
71	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
72	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
73	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
74	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
75	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
76	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
77	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
78	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
79	0.50	0.50	0.50	0.50	0.38	0.71	0.25	0.25	0.25	0.25	0.20	0.34
80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

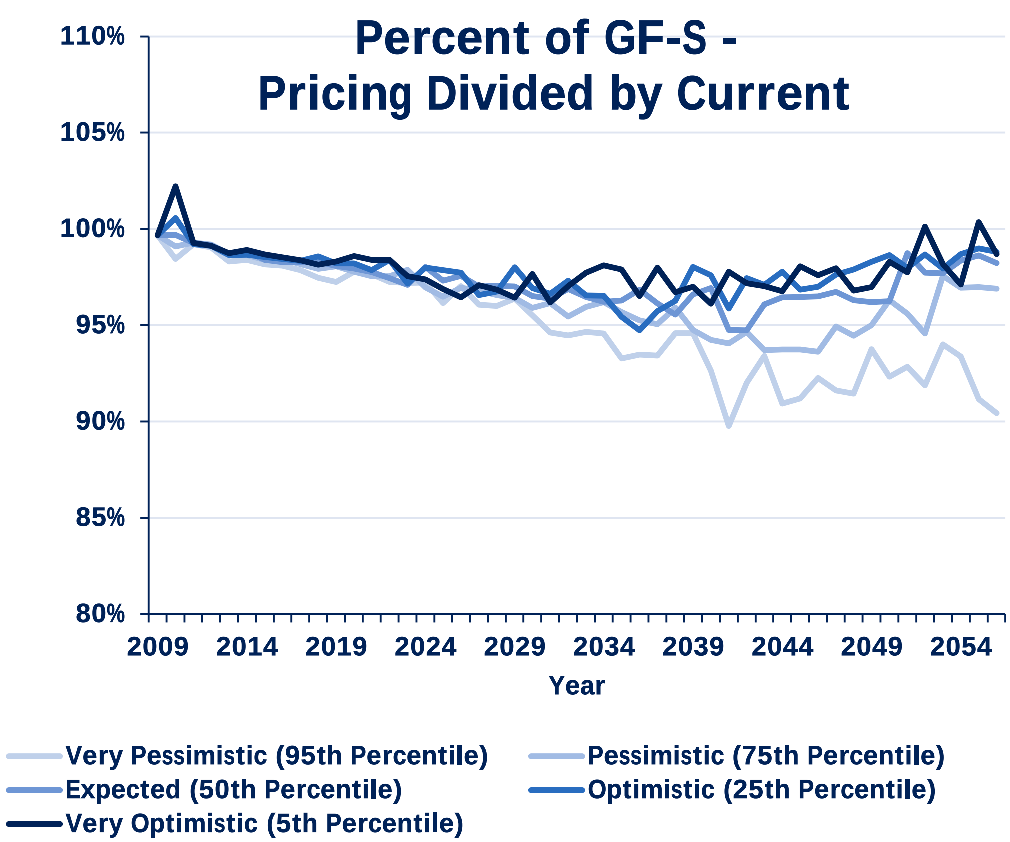
We assumed two-thirds of new entrants will join Plan 2 and one-third of new entrants will join Plan 3. In addition, we included actual asset returns through June 30, 2010, in our projections. We assumed asset returns of 8 percent per year after June 30, 2010.

APPENDIX B – HOW THE RISK MEASURES CHANGED

In general, we expect to see an improvement in the long-term affordability of the plans as a result of this bill. However, it will take time for this to emerge since the bill impacts new hires only. We measure affordability risk as the percentage of the GF-S budget allocated to future pension contributions. The first graph below demonstrates this risk measure under current law. The second graph demonstrates this risk measure under this bill. We provide the percentage change in this risk measure in the third graph.




Percent of GF-S - Pricing
12%
10%
8%
6%
4%
2%
0%
Percent of GF-S
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)


Percent of GF-S -
Pricing Divided by Current
110%
105%
100%
95%
90%
85%
80%
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)

The third graph shows the percentage of GF-S under this bill divided by the percentage of GF-S under current law. Nearly all scenarios fall below 100 percent demonstrating the long-term effect of lower contribution rates, and therefore a lower percent of future GF-S allocated to pensions under this bill as compared to current law.

Since the change in benefits is for new entrants, we see no immediate contribution rate decrease. The lower costs emerge over time as the current population (with subsidized ERFs) is replaced by new entrants (with no subsidized ERFs). As shown in the "How Contribution Rates Change" table, the lower costs take about 25 to 30 years to fully materialize. The full cost savings is about 4 percent (for SERS) to 10 percent (for TRS) of the long-term ongoing cost of the open plans. The average contribution rate savings over the 25-year period is about two-thirds of the long-term savings level.

Many of the affordability risks under this measure occur around the years 2020 to 2025 when the Plan 1 plus Plan 2/3 costs are projected to be at a maximum (under bad economic conditions). Since the savings from this bill take so long to materialize, we see only marginal improvement in the risk measures. However, we observe a noticeable decrease in the percent of GF-S that pensions will consume over time.

With the exception of the changes discussed the Assumptions We Made section, we developed this risk assessment using the same assumptions, methods, and data as disclosed in the August 31, 2010, Risk Assessment.

GLOSSARY OF ACTUARIAL TERMS

Actuarial Accrued Liability: Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

Actuarial Present Value: The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions (i.e. interest rate, rate of salary increases, mortality, etc.).

Aggregate Funding Method: The Aggregate Funding Method is a standard actuarial funding method. The annual cost of benefits under the Aggregate Method is equal to the normal cost. The method does not produce an unfunded actuarial accrued liability. The normal cost is determined for the entire group rather than on an individual basis.

Entry Age Normal Cost Method (EANC): The EANC method is a standard actuarial funding method. The annual cost of benefits under EANC is comprised of two components:

- Normal cost.
- Amortization of the unfunded actuarial accrued liability.

The normal cost is determined on an individual basis, from a member's age at plan entry, and is designed to be a level percentage of pay throughout a member's career.

Normal Cost: Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year.

Projected Unit Credit (PUC) Liability: The portion of the Actuarial Present Value of future benefits attributable to service credit that has been earned to date (past service).

Projected Benefits: Pension benefit amounts that are expected to be paid in the future taking into account such items as the effect of advancement in age as well as past and anticipated future compensation and service credits.

Unfunded PUC Liability: The excess, if any, of the Present Value of Benefits calculated under the PUC cost method over the Valuation Assets. This is the portion of all benefits earned to date that are not covered by plan assets.

Unfunded Actuarial Accrued Liability (UAAL): The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date that are not covered by plan assets.

Individual State Agency Fiscal Note

Bill Number: 1742 HB	Title: Alternate early retirement	Agency: 124-Department of Retirement Systems

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.3	0.0	0.1	0.0	0.0
Account					
Department of Retirement Systems Expense Account-State 600-1	45,112	0	45,112	0	0
Total $	45,112	0	45,112	0	0

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☐ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☒ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☒ Requires new rule making, complete Part V.

Legislative Contact:	David Pringle	Phone: 360-786-7310	Date: 02/02/2011
Agency Preparation:	Chris Lamb	Phone: 360-664-7282	Date: 02/07/2011
Agency Approval:	Marcie Frost	Phone: 360-664-7224	Date: 02/07/2011
OFM Review:	Heather Matthews	Phone: (360) 902-0543	Date: 02/07/2011

Request # 11-009-1

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

This bill removes the alternate early retirement provisions for the Public Employees' Retirement System (PERS) Plans 2 and 3, the School Employees' Retirement System (SERS) Plans 2 and 3 and the Teachers' Retirement System (TRS) Plan 2 and 3; for members who first become employed in an eligible position on or after July 1, 2011.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

No impact.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

ADMINISTRATIVE ASSUMPTIONS

- Members who establish membership through the purchase of substitute teaching time will not be eligible for alternate early retirement provisions if the substitute teaching time is purchased on or after July 1, 2011.
- Notification to potential members who could purchase time prior to the effective date of this bill will be accomplished through employers and web site postings.

The assumptions above were used in developing the following workload impacts and cost estimates.

BENEFITS/CUSTOMER SERVICE

Estimates for costs and hours associated with benefits/customer service for this bill include:

- Define business requirements for the Member Information and Benefits automated systems
- Develop communications for potential members with substitute teaching time
- Review and update forms and publications
- Review and update existing rules
- Review and update member letters
- Participate in user acceptance testing of system modifications

Retirement Services Analyst 3 – 375 hours (salaries/benefits) = $12,201
Total Estimated Benefits/Customer Service Costs = $12,201

MEMBER COMMUNICATIONS

Estimates for costs and hours associated with communicating the transfer option to members include:

- Review and update Member Handbooks for Plans 2 and 3 of PERS, SERS and TRS
- Review and update Plan Choice Booklets
- Review and update brochures regarding the purchase of additional service credit
- Review and update guides for substitute teachers

Communications Consultant 5 – 65 hours (salaries/benefits) = $2,858
Total Estimated Member Communications Costs = $2,858

AUTOMATED SYSTEMS

The Department of Retirement Systems' (DRS) will make modifications to the automated Member Information System and Benefits System to modify estimate and benefit calculations, update retirement eligibility rules, update system generated letters and update both member and employer web application tools.

Information Technology Specialist 4 – 120 hours (salaries/benefits)	$5,393
Programming, testing and verification – 228 hours @ $95 per hour	$21,660
DIS* cost of $500 per week for 6 weeks	$3,000
Total Estimated Costs for Systems Modifications	$30,053

*cost for mainframe computer processing time and resources at the Department of Information Services

ESTIMATED TOTAL COST TO IMPLEMENT THIS BILL:

2011-13
BENEFITS/CUSTOMER SERVICE = $12,201
MEMBER COMMUNICATIONS = $2,858
AUTOMATED SYSTEMS = $30,053

ESTIMATED TOTAL COSTS = $45,112

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.3		0.1		
A-Salaries and Wages	15,146		15,146		
B-Employee Benefits	5,306		5,306		
C-Personal Service Contracts					
E-Goods and Services	24,660		24,660		
G-Travel					
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements					
9-					
Total:	$45,112	$0	$45,112	$0	$0

III. B - Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2012	FY 2013	2011-13	2013-15	2015-17
Communications Consultant 5	69,756	0.0		0.0		
Info Tech Specialist 4	71,496	0.1		0.0		
Retirement Services Analyst 3	49,368	0.2		0.1		
Total FTE's	190,620	0.3		0.1		0.0

Part IV: Capital Budget Impact

NONE

No impact.

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

New rules will be required.