2ESB 6378: Reforming the State Retirement Plans

Bill Provisions

2ESB 6378 has three main provisions:

- Modifying Early Retirement Factors (ERFs) for new hires.
- Codifying lower Rates-of-Return (ROR) than currently in effect.
- Creating a new SCPP study.

ERFs For New Hires

Under the bill, employees hired on or after May 1, 2013, are not eligible for existing ERFs. Instead, employees retiring early will see their benefits reduced by 5 percent per year for each year the member retires before age 65 (normal retirement).

ERFs for current employees are unaffected.

Codifying Lower ROR

The bill sets the following rates of return:

- Seven point nine percent, as of July 1, 2013.
- Seven point eight percent, as of July 1, 2015.
- Seven point seven percent, as of July 1, 2017.

Other long-term economic assumptions adopted by the Pension Funding Council are unaffected.

SCPP Study

The bill requires the SCPP to:

- Study high risk job classifications.
  - ◊ With assistance from Department of Labor and Industries.
- Study ERFs and job requirements that may limit the effectiveness of older classroom employees.
  - ◊ With assistance from Office of Superintendent of Public Instruction.

- Identify groups and evaluate them for:
  - Inclusion in the Public Safety Employees' Retirement System.
  - Creation of the Teachers' Retirement System or School Employees' Retirement System ERFs.

The report is due to the fiscal committees of Legislature by December 15, 2012.

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CERTIFICATION OF ENROLLMENT

SECOND ENGROSSED SENATE BILL 6378

62nd Legislature
2012 1st Special Session

Passed by the Senate April 10, 2012
YEAS 27 NAYS 22

President of the Senate

Passed by the House April 10, 2012
YEAS 56 NAYS 42

Speaker of the House of Representatives

Approved

Governor of the State of Washington

CERTIFICATE

I, Thomas Hoemann, Secretary of the Senate of the State of Washington, do hereby certify that the attached is **SECOND ENGROSSED SENATE BILL 6378** as passed by the Senate and the House of Representatives on the dates hereon set forth.

Secretary

FILED

Secretary of State
State of Washington

SECOND ENGROSSED SENATE BILL 6378

Passed Legislature - 2012 1st Special Session

State of Washington 62nd Legislature 2012 1st Special Session

By Senators Zarelli, Baumgartner, Parlette, Hill, and Tom

Read first time 01/19/12. Referred to Committee on Ways & Means.

AN ACT Relating to benefits and contributions for new members of the public employees' retirement system, the teachers' retirement system, and the school employees' retirement system; amending RCW 41.32.765, 41.32.875, 41.35.420, 41.35.680, 41.40.630, 41.40.820, and 41.45.035; and creating a new section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

Sec. 1. RCW 41.32.765 and 2007 c 491 s 2 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member with at least five service credit years of service who has attained at least age sixty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.760.

(2) EARLY RETIREMENT. Any member who has completed at least twenty service credit years of service who has attained at least age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.760, except that a member retiring pursuant to this subsection shall have the retirement allowance actuarially reduced to reflect the difference in the number

of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.760, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after September 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.760, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%
58	11%
59	8%
60	5%
61	2%
62	0%
63	0%
64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.32.802(2) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.32.800(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 2, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

<u>(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.760, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.</u>

Sec. 2. RCW 41.32.875 and 2007 c 491 s 4 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member who is at least age sixty-five and who has:

(a) Completed ten service credit years; or

(b) Completed five service credit years, including twelve service credit months after attaining age forty-four; or

(c) Completed five service credit years by July 1, 1996, under plan 2 and who transferred to plan 3 under RCW 41.32.817;

shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.840.

(2) EARLY RETIREMENT. Any member who has attained at least age fifty-five and has completed at least ten years of service shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.840, except that a member retiring pursuant to this subsection shall have the retirement allowance actuarially reduced to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.840, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after September 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.840, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%

58	11%
59	8%
60	5%
61	2%
62	0%
63	0%
64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.32.862(2) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.32.860(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 4, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.32.840, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

Sec. 3. RCW 41.35.420 and 2007 c 491 s 6 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member with at least five service credit years who has attained at least age sixty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.400.

(2) EARLY RETIREMENT. Any member who has completed at least twenty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.400, except that a member retiring pursuant to this subsection shall have the retirement allowance actuarially reduced to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.400, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after September 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.400, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%
58	11%
59	8%
60	5%
61	2%
62	0%
63	0%
64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.35.060(2) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.35.230(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 6, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

<u>(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.400, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.</u>

Sec. 4. RCW 41.35.680 and 2007 c 491 s 8 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member who is at least age sixty-five and who has:

(a) Completed ten service credit years; or

(b) Completed five service credit years, including twelve service credit months after attaining age forty-four; or

(c) Completed five service credit years by September 1, 2000, under the public employees' retirement system plan 2 and who transferred to plan 3 under RCW 41.35.510;

shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.620.

(2) EARLY RETIREMENT. Any member who has attained at least age fifty-five and has completed at least ten years of service shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.620, except that a member retiring pursuant to this subsection shall have the retirement

allowance actuarially reduced to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after September 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%
58	11%
59	8%
60	5%
61	2%
62	0%
63	0%
64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.35.060(2) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.35.230(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 8, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

<u>(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.35.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.</u>

Sec. 5. RCW 41.40.630 and 2007 c 491 s 9 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member with at least five service credit years who has attained at least age sixty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.620.

(2) EARLY RETIREMENT. Any member who has completed at least twenty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.620, except that a member retiring pursuant to this subsection shall have the retirement allowance actuarially reduced to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after July 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%
58	11%
59	8%
60	5%
61	2%
62	0%
63	0%

64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.40.037(2)(d) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.40.690(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 9, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.620, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

Sec. 6. RCW 41.40.820 and 2007 c 491 s 10 are each amended to read as follows:

(1) NORMAL RETIREMENT. Any member who is at least age sixty-five and who has:

(a) Completed ten service credit years; or

(b) Completed five service credit years, including twelve service credit months after attaining age forty-four; or

(c) Completed five service credit years by the transfer payment date specified in RCW 41.40.795, under the public employees' retirement system plan 2 and who transferred to plan 3 under RCW 41.40.795;

shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.790.

(2) EARLY RETIREMENT. Any member who has attained at least age fifty-five and has completed at least ten years of service shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.790, except that a member retiring pursuant to this subsection shall have the retirement allowance actuarially reduced to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(3) ALTERNATE EARLY RETIREMENT.

(a) Any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.790, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by three percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.

(b) On or after July 1, 2008, any member who has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.790, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced as follows:

Retirement Age	Percent Reduction
55	20%
56	17%
57	14%
58	11%
59	8%
60	5%
61	2%
62	0%
63	0%
64	0%

Any member who retires under the provisions of this subsection is ineligible for the postretirement employment provisions of RCW 41.40.037(2)(d) until the retired member has reached sixty-five years of age. For purposes of this subsection, employment with an employer also includes any personal service contract, service by an employer as a temporary or project employee, or any other similar compensated relationship with any employer included under the provisions of RCW 41.40.850(1).

The subsidized reductions for alternate early retirement in this subsection as set forth in section 10, chapter 491, Laws of 2007 were intended by the legislature as replacement benefits for gain-sharing. Until there is legal certainty with respect to the repeal of chapter 41.31A RCW, the right to retire under this subsection is noncontractual, and the legislature reserves the right to amend or repeal this subsection. Legal certainty includes, but is not limited to, the expiration of any: Applicable limitations on actions; and periods of time for seeking appellate review, up to and including reconsideration by the Washington supreme court and the supreme court of the United States. Until that time, eligible members may still retire under this subsection, and upon receipt of the first installment of a retirement allowance computed under this subsection, the resulting benefit becomes contractual for the recipient. If the repeal of chapter 41.31A RCW is held to be invalid in a final determination of a court of law, and the court orders reinstatement of gain-sharing or other alternate benefits as a remedy, then retirement benefits for any member who has completed at least thirty service credit years and has attained age fifty-five but has not yet received the first installment of a retirement allowance under this subsection shall be computed using the reductions in (a) of this subsection.

<u>(c) Members who first become employed by an employer in an eligible position on or after May 1, 2013, are not eligible for the alternate early retirement provisions of (a) or (b) of this subsection. Any member who first becomes employed by an employer in an eligible position on or after May 1, 2013, and has completed at least thirty service credit years and has attained age fifty-five shall be eligible to retire and to receive a retirement allowance computed according to the provisions of RCW 41.40.790, except that a member retiring pursuant to this subsection shall have the retirement allowance reduced by five percent per year to reflect the difference in the number of years between age at retirement and the attainment of age sixty-five.</u>

Sec. 7. RCW 41.45.035 and 2009 c 561 s 2 are each amended to read as follows:

(1) Beginning July 1, 2001, the following long-term economic assumptions shall be used by the state actuary for the purposes of RCW 41.45.030:

(a) The growth in inflation assumption shall be 3.5 percent;

(b) The growth in salaries assumption, exclusive of merit or longevity increases, shall be 4.5 percent;

(c) The investment rate of return assumption shall be 8 percent; and

(d) The growth in system membership assumption shall be 1.25 percent for the public employees' retirement system, the public safety employees' retirement system, the school employees' retirement system, and the law enforcement officers' and firefighters' retirement system. The assumption shall be .90 percent for the teachers' retirement system.

(2) Beginning July 1, 2009, the growth in salaries assumption for the public employees' retirement system, the public safety employees'

retirement system, the teachers' retirement system, the school employees' retirement system, plan 1 of the law enforcement officers' and firefighters' retirement system, and the Washington state patrol retirement system, exclusive of merit or longevity increases, shall be the sum of:

(a) The growth in inflation assumption in subsection (1)(a) of this section; and

(b) The productivity growth assumption of 0.5 percent.

(3) The following investment rate of return assumptions for the public employees' retirement system, the public safety employees' retirement system, the teachers' retirement system, the school employees' retirement system, plan 1 of the law enforcement officers' and firefighters' retirement system, and the Washington state patrol retirement system, shall be used by the state actuary for the purposes of RCW 41.45.030:

(a) Beginning July 1, 2013, the investment rate of return assumption shall be 7.9 percent.

(b) Beginning July 1, 2015, the investment rate of return assumption shall be 7.8 percent.

(c) Beginning July 1, 2017, the investment rate of return assumption shall be 7.7 percent.

(d) For valuation purposes, the state actuary shall only use the assumptions in (a) through (c) of this subsection after the effective date in (a) through (c) of this subsection.

(e) By June 1, 2017, the state actuary shall submit to the council information regarding the experience and financial condition of each state retirement system, and make recommendations regarding the long-term investment rate of return assumptions set forth in this subsection. The council shall review this and such other information as it may require.

(4)(a) Beginning with actuarial studies done after July 1, 2003, changes to plan asset values that vary from the long-term investment rate of return assumption shall be recognized in the actuarial value of assets over a period that varies up to eight years depending on the magnitude of the deviation of each year's investment rate of return relative to the long-term rate of return assumption. Beginning with actuarial studies performed after July 1, 2004, the actuarial value of assets shall not be greater than one hundred thirty percent of the market value of assets as of the valuation date or less than seventy percent of the market value of assets as of the valuation date. Beginning April 1, 2004, the council, by affirmative vote of four councilmembers, may adopt changes to this asset value smoothing technique. Any changes adopted by the council shall be subject to revision by the legislature.

(b) The state actuary shall periodically review the appropriateness of the asset smoothing method in this section and recommend changes to the council as necessary. Any changes adopted by the council shall be subject to revision by the legislature.

NEW SECTION. **Sec. 8.** The select committee on pension policy, with the assistance of the department of labor and industries, shall study the issue of risk classifications of employees in the Washington state retirement systems that entail either high degrees of physical or psychological risk to the members' own safety or unusually high physical requirements that result in elevated risks of injury or disablement for older employees. The select committee on pension policy, with the assistance of the office of the superintendent of public instruction, shall also study existing early retirement factors and job requirements that may limit the effectiveness of the older classroom employee. The study shall identify groups and evaluate them for inclusion in the public safety employees' retirement system or the creation of other early retirement factors in the teachers' or school employees' retirement systems. The select committee on pension policy shall report the findings and recommendations of its study to the legislative fiscal committees by no later than December 15, 2012.

--- END ---

SUMMARY OF RESULTS

This bill reduces subsidized early retirement benefits for newly hired members in Plans 2/3 of PERS, TRS, and SERS retirement systems, lowers the prescribed rate-of-return assumptions used in determining contribution requirements, and requires the SCPP to perform a pension study.

Impact on Contribution Rates (Effective 7/1/2012)*						
Fiscal Year 2013 State Budget	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**	**WSPRS**
Employee (Plan 2) / Total Employer	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

**Please see the remainder of this fiscal note for contribution rate impacts beyond July 1, 2012.*

Budget Impacts			
(Dollars in Millions)	**Fiscal Year 2013**	**2013-2015**	**25-Year**
General Fund-State	$0.0	($4.4)	($180.7)
Local Government	$0.0	($4.1)	($173.8)
Total Employer	$0.0	($9.6)	($382.5)

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.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

We expect the reduction of subsidized early retirement benefits for new hires in PERS, TRS, and SERS Plans 2/3 to decrease employer costs and Plan 2 contribution rates. For this Plans 2/3 provision alone, we expect a 25-year total employer savings of over $1.6 billion.

The lower rate-of-return assumptions will not change actual benefits paid or the actual rate of return the plans experience, but will change the timing of future contributions and dollar amount of future investment returns. As a result, we expect the lower rate-of-return assumptions to temporarily increase contribution requirements resulting in higher employer costs and Plan 2 contribution rates over the next 25 years. For this provision alone, we expect a 25-year total employer cost of over $1.2 billion. We expect a 50-year total employer savings of approximately $4 billion from the additional prefunding that occurs during the next 25 years.

When we consider both provisions together, we expect a total employer savings of $382.5 million over the next 25 years. We expect the change in subsidized early retirement benefits will change future retirement behavior, but found the expected cost of this provision does not change that much when we assume different retirement behavior.

We found overall affordability remained unchanged and risk improved as measured under the Pension Score Card. However, we expect long-term affordability and Plan 2 contribution rates for current members to improve over the lifetime of the plans. Please see the Risk Analysis section and Appendix B for more detailed information.

See the remainder of this fiscal note for additional details on the summary and highlights presented here.

WHAT IS THE PROPOSED CHANGE?

Summary Of Change

This bill impacts the following systems by changing the prescribed Rate-of-Return (ROR) assumptions for determining contribution rate requirements:

- ❖ Public Employees' Retirement System (PERS).
- ❖ Teachers' Retirement System (TRS).
- ❖ School Employees' Retirement System (SERS).
- ❖ Public Safety Employees' Retirement System (PSERS).
- ❖ Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 1.
- ❖ Washington State Patrol Retirement System (WSPRS).

ROR assumptions are set as follows:

- ❖ 7.9 percent, beginning July 1, 2013.
- ❖ 7.8 percent, beginning July 1, 2015.
- ❖ 7.7 percent, beginning July 1, 2017.

This bill also changes benefits for members in Plans 2/3 of PERS, TRS, and SERS retirement systems by removing existing options for subsidized early retirement for members newly hired on or after May 1, 2013, and replacing these options with a new option. Specifically, it removes the 2000 and 2008 Early Retirement Factors (ERFs), and replaces them with a 5 percent reduction for each year of early retirement prior to age 65. To be eligible for the 5 percent ERF, you must be age 55 or older, and have at least 30 years of service.

The bill requires the State Actuary, in 2017, to submit information regarding the experience and financial condition of each state retirement system three months earlier than under current law (see RCW 41.45.030). This change does not affect the pricing of the bill.

The bill requires the Select Committee on Pension Policy to study job classifications in the pension systems. The study does not affect the pricing of the bill.

Effective Date: 90 days after session.

What Is The Current Situation?

The normal retirement age for members in the affected Plans 2/3 is age 65. 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 Plans 2/3 members who have attained age 55 and have at least 30 years of service credit. Pensions 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 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 full 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 full pension if they return to work in any capacity for a covered public employer before they reach age 65.

The ROR is one of four prescribed long-term economic assumptions used by the State Actuary to determine contribution rate requirements for the state retirement systems. These long-term economic assumptions were originally set in statute. The Pension Funding Council (PFC) has authority to revise these assumptions, subject to revision by the Legislature.

On October 1, 2011, the PFC adopted new economic assumptions for the plans impacted by this bill. The table below displays the current assumptions and new assumptions, which become effective July 1, 2013 under current law.

Assumption	Current	Adopted
Inflation	3.50%	3.00%
General salary growth	4.00%	3.75%
Annual investment return	8.00%	7.90%
Growth in system membership*	0.90% (TRS), 1.25% (Others)	0.80% (TRS), 0.95% (Others)

** Used to determine employer contribution requirements for the Plan 1 UAAL only.*

Who Is Impacted And How?

We estimate this bill could affect all 154,923 active members of PERS 2, TRS 2, SERS 2, PSERS, and WSPRS 1/2, and all employers of PERS, TRS, SERS, PSERS, and WSPRS through different contribution rates. We expect PERS, TRS, and SERS Plan 2 members and employers to experience an eventual decrease in contribution rates through the reduction of subsidized ERFs for members hired on or after May 1, 2013. We further expect Plan 2 and WSPRS members and employers to experience temporary contribution rate increases as a result of higher contribution rate requirements from the lower ROR assumption. However, we expect the additional prefunding from the temporary increase in contribution requirements will result in lower contribution requirements in the long-term.

This bill will not affect member contribution rates in Plan 1 since they are fixed in statute. 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.

Employer rate impacts vary by year since they include changes to both the Plan 1 UAAL rate and the Plans 2/3 normal cost. Please see How Contribution Rates Changed for further details.

This bill will also affect members hired on or after May 1, 2013, in PERS, TRS, and SERS through decreased benefits in the form of 5 percent subsidized ERFs. Five percent subsidized ERFs have reduction factors larger than the subsidized ERFs reduction factors under the current law, as shown in the table below.

Subsidized Early Retirement Reduction Factors			
Age	2000 ERFs	2008 ERFs	2ESB 6378 ERFs*
55	0.70	0.80	0.50
56	0.73	0.83	0.55
57	0.76	0.86	0.60
58	0.79	0.89	0.65
59	0.82	0.92	0.70
60	0.85	0.95	0.75
61	0.88	0.98	0.80
62	0.91	1.00	0.85
63	0.94	1.00	0.90
64	0.97	1.00	0.95
65	1.00	1.00	1.00

**Applied for members hired on or after May 1, 2013, with at least 30 years of service.*

For example, a member hired on or after May 1, 2013, who retires at age 61 with 30 years of service would have their annual pension reduced by 20 percent under this bill rather than 2 percent under current law. For a member in Plan 2 with an average final salary of $50,000, under current law the ERF would be 0.98, resulting in an initial annual benefit of $29,400. Under this bill, the ERF would be 0.80 resulting in an initial annual benefit of $24,000.

WHY THIS BILL HAS A COST/SAVINGS AND WHO PAYS FOR IT

Why This Bill Has A Cost/Savings

The two major provisions of this bill have separate types of impacts:

- **Change in ROR Assumption –** An assumption change that does not change actual benefits paid or the actual rate of return the plans will experience, but does change the timing of future contributions. This change in timing results in temporary increases in contribution requirements (additional prefunding) followed by lower contribution requirements for employers and Plan 2 members (due to additional prefunding).
- **Change to Subsidized ERFs for Members Hired on or after May 1, 2013 –** A benefit reduction that lowers the liabilities and costs associated with future members. It begins as a small savings (when there aren't many new hires in the system) and becomes a larger savings over time.

See Appendix A for further details on the budget impacts of this bill by major provision.

Who Will Pay For/Receive These Costs/Savings?

The costs/savings that result from this bill will be divided between members and employers according to standard funding methods that vary by plan:

- Plan 1: 100 percent employer.
- Plan 2: 50 percent member and 50 percent employer.
- Plan 3: 100 percent employer.

PERS, SERS, and PSERS employers will realize the impacts on the PERS UAAL payment from a lower assumed ROR, whereas TRS employers will realize the impacts on the TRS UAAL payment.

HOW WE VALUED THESE COSTS

Assumptions We Made

We made the following assumption changes for each of the two major provisions of this bill.

- **Change in ROR Assumption –** To determine the change in the present value of future benefits (and salaries) for current and future members at future measurement dates, we changed the investment return assumptions in our valuation software according to the schedule specified in the bill. We assumed that the prescribed ROR assumption for a given biennium should be applied in the contribution rate-setting valuation for that biennium. For example, the 2013-15 ROR of 7.9 percent would be included in the 2011 valuation.

To determine the projected assets at each future valuation date, we changed the expected long-term rate of investment return from 8.0 percent to 7.7 percent.

For purposes of this pricing, we changed all economic assumptions consistent with the assumption changes adopted by the PFC in 2011. We further assumed that the changes in this bill for the ROR do not revise the actions of the PFC concerning all other economic assumptions.

- **Change to Subsidized ERFs for Members Hired on or after May 1, 2013 –** We assumed future members would retire later (work longer) under 5 percent subsidized ERFs. Specifically, we assumed new hires would have lower rates of retirement after 30 years of service than currently assumed.

The savings from reducing subsidized early retirements for members hired on or after May 1, 2013, assumes the continuation of these benefits for new hires under current law. According to current law, if the courts, through a final court action, reinstate gain-sharing benefits, the 2008 ERFs are removed prospectively by operation of law. Should this occur, then the expected net savings attributed to this bill would decrease.

Please see Appendix C for further details on the assumption changes we made for this pricing.

How We Applied These Assumptions

We calculated the cost of this bill by comparing the current situation ("base") to the expected scenario if this bill passed ("pricing").

The base is a projection that includes:

- The long-term economic assumptions adopted by the PFC for determining the present value of future benefits and salaries for current and new members.
- An expected 7.7 percent rate of return on assets.
- New hires having access to the 2000 and 2008 subsidized ERFs.

Based on this projection we observe both the required contribution rates and the projected payroll. The multiplication of these two items results in the base fiscal costs.

The pricing is a projection that includes:

- The ROR assumptions for determining the present value of future benefits and salaries changing by year as specified in the bill.

- ❖ An expected 7.7 percent rate of return on assets.
- ❖ New hires on or after May 1, 2013, having access to 5 percent subsidized ERFs (and therefore retiring later on average).

Based on this projection we observe the new required contribution rates and projected payroll. The multiplication of these two items results in the pricing fiscal costs.

We then compare the pricing fiscal costs to the base fiscal costs to determine the expected impact from this bill.

For determining the projected assets available at each future valuation date, we hold the expected long-term return on assets constant under both the base and pricing because the bill does not change the actual ROR the plans will experience. Using this method we can isolate the impact on projected contribution requirements from changing the ROR assumptions and the timing of future contribution requirements.

Since the 5 percent subsidized ERF provisions are effective May 1, 2013, we applied an additional ten-month interest adjustment to that portion of the liability change to reflect the delayed effective date (for the period July 1, 2012 to May 1, 2013).

Otherwise, we developed these costs using the same methods as disclosed in the *June 30, 2010, Actuarial Valuation Report* (AVR).

Special Data Needed

We developed these costs using the same assets and data as disclosed in the AVR. In addition, we recognized investment returns of 21.14 percent through June 30, 2011, when estimating projected asset values.

ACTUARIAL RESULTS

How The Liabilities Changed

This bill does not change the present value of future benefits, measured at June 30, 2010, payable to current members so there is no impact on pension liability for current members at this measurement date. We include the estimated impact of benefit changes for future hires and the impact of changes in pension liabilities at future measurement dates in the budget impact section.

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	$12,721	$0.0	$12,721
PERS 2/3	26,041	0.0	26,041
PERS Total	**$38,762**	**$0.0**	**$38,762**
TRS 1	$9,305	$0.0	$9,305
TRS 2/3	9,111	0.0	9,111
TRS Total	**$18,416**	**$0.0**	**$18,416**
SERS 2/3	**$3,461**	**$0.0**	**$3,461**
PSERS 2	**$425**	**$0.0**	**$425**
LEOFF 1	$4,401	$0.0	$4,401
LEOFF 2	7,904	0.0	7,904
LEOFF Total	**$12,306**	**$0.0**	**$12,306**
WSPRS 1/2	**$953**	**$0.0**	**$953**
Unfunded Actuarial Accrued Liability			
*(The Portion of the Plan 1 Liability that is Amortized According to Funding Policy)**			
PERS 1	**$3,094**	**$0.0**	**$3,094**
TRS 1	**$1,345**	**$0.0**	**$1,345**
LEOFF 1	**($1,161)**	**$0.0**	**($1,161)**
Unfunded Projected Unit Credit Liability			
(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)			
PERS 1	$3,238	$0.0	$3,238
PERS 2/3	(2,202)	$0.0	(2,202)
PERS Total	**$1,036**	**$0.0**	**$1,036**
TRS 1	$1,439	$0.0	$1,439
TRS 2/3	(886)	$0.0	(886)
TRS Total	**$554**	**$0.0**	**$554**
SERS 2/3	**($296)**	**$0.0**	**($296)**
PSERS 2	**($23)**	**$0.0**	**($23)**
LEOFF 1	($1,180)	$0.0	($1,180)
LEOFF 2	(1,204)	$0.0	(1,204)
LEOFF Total	**($2,384)**	**$0.0**	**($2,384)**
WSPRS 1/2	**($138)**	**$0.0**	**($138)**

Note: Totals may not agree due to rounding.
** PERS 1 and TRS 1 are amortized over a ten-year period. LEOFF 1 must be amortized by June 30, 2024.*

How The Present Value of Future Salaries (PVFS) Changed

This proposal does not change the PVFS of the current members at the measurement date of June 30, 2010. We include the estimated PVFS impact of later assumed retirement for new hires and impact of changes in PVFS at future measurement dates in the budget impact section.

How Contribution Rates Changed

This bill does not impact benefits for current members so there is no 2013 supplemental contribution rate required for the current biennium.

We used the rounded employer rate changes shown below for the Plan 1 UAAL and Plans 2/3 and WSPRS Normal Cost (NC) to measure the budget changes in future Fiscal Years (FY).

Employer Contribution Rate Change By Year								
FY	PERS 1 UAAL	PERS 2/3 NC	TRS 1 UAAL	TRS 2/3 NC	SERS 2/3 NC	PSERS 2 NC	LEOFF 1 UAAL	WSPRS 1/2 NC
2013	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2014	0.00%	(0.02%)	0.00%	(0.05%)	(0.02%)	0.00%	0.00%	0.00%
2015	0.00%	(0.02%)	0.00%	(0.05%)	(0.02%)	0.00%	0.00%	0.00%
2016	0.08%	0.30%	0.00%	0.23%	0.33%	0.21%	0.00%	0.16%
2017	0.08%	0.30%	0.00%	0.23%	0.33%	0.21%	0.00%	0.16%
2018	0.15%	0.64%	0.00%	0.51%	0.68%	0.50%	0.00%	3.00%
2019	0.15%	0.64%	0.00%	0.51%	0.68%	0.50%	0.00%	3.00%
2020	0.00%	0.53%	0.00%	0.39%	0.57%	0.50%	0.00%	3.38%
2021	0.00%	0.53%	0.00%	0.39%	0.57%	0.50%	0.00%	3.38%
2022	0.00%	0.31%	0.00%	0.21%	0.35%	0.44%	0.00%	2.52%
2023	0.00%	0.31%	0.24%	0.21%	0.35%	0.44%	0.00%	2.52%
2024	0.00%	0.12%	0.00%	0.06%	0.14%	0.36%	0.00%	1.68%
2025	0.00%	0.12%	0.00%	0.06%	0.14%	0.36%	0.00%	1.68%
2026	(0.31%)	(0.04%)	0.00%	(0.07%)	(0.03%)	0.28%	0.00%	0.98%
2027	0.00%	(0.04%)	0.00%	(0.07%)	(0.03%)	0.28%	0.00%	0.98%
2028	0.00%	(0.15%)	0.00%	(0.18%)	(0.14%)	0.21%	0.00%	0.42%
2029	0.00%	(0.15%)	0.00%	(0.18%)	(0.14%)	0.21%	0.00%	0.42%
2030	0.00%	(0.24%)	0.00%	(0.26%)	(0.22%)	0.15%	0.00%	(0.02%)
2031	0.00%	(0.24%)	0.00%	(0.26%)	(0.22%)	0.15%	0.00%	(0.02%)
2032	0.00%	(0.32%)	0.00%	(0.34%)	(0.28%)	0.09%	0.00%	(0.34%)
2033	0.00%	(0.32%)	0.00%	(0.34%)	(0.28%)	0.09%	0.00%	(0.34%)
2034	0.00%	(0.37%)	0.00%	(0.40%)	(0.31%)	0.05%	0.00%	(0.60%)
2035	0.00%	(0.37%)	0.00%	(0.40%)	(0.31%)	0.05%	0.00%	(0.60%)
2036	0.00%	(0.41%)	0.00%	(0.45%)	(0.34%)	0.01%	0.00%	(0.82%)
2037	0.00%	(0.41%)	0.00%	(0.45%)	(0.34%)	0.01%	0.00%	(0.82%)

Contribution rates changes vary by source (normal cost versus UAAL) and by system.

LEOFF 1, WSPRS, and PSERS are not affected by the change to subsidized early retirement. In these plans we see the impact of the change in the assumed ROR only. If all assumptions are realized, we expect LEOFF 1 to remain fully funded before and after this bill. We found the change in the assumed ROR triggers the member maximum rate in WSPRS earlier than under current law. This results in larger employer rate increases beginning in FY 2018.

The normal cost rates in PERS, TRS, and SERS are impacted by both the change in the assumed ROR and the reduction in subsidized early retirement for new hires. The impact of the changes to the ROR assumption surfaces in FY 2016 since we already assume a 7.9 percent ROR under current law for this pricing. In other words, this bill does not change the ROR assumption until 2015-17 when the prescribed rate becomes 7.8 percent (with a subsequent change in 2017-19 when the prescribed rate becomes 7.7 percent). For this change alone, we see temporary increases in required contribution rates (leading to additional prefunding) followed by decreases in required contribution rates (due to the additional prefunding). We expect decreases in the required contribution rates for PSERS to emerge beyond 25 years.

PERS, TRS, and SERS Plans 2/3 normal cost rates decrease due to the reduction of subsidized ERFs for all impacted systems. TRS experiences the largest future rate savings from this benefit change because TRS has the highest utilization of subsidized early retirement under current law, followed by PERS and then SERS.

The combined effect of (a) the change in the assumed ROR and (b) the reduction of subsidized early retirement benefits for new hires leads to decreased contribution requirements beginning in FY 2026 for PERS, TRS, and SERS.

Please see Appendix A for estimated contribution rate changes for each of the major provisions of this bill.

How This Impacts Budgets And Employees

Budget Impacts							
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**	**WSPRS**	**Total**
Fiscal Year 2013							
General Fund	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Non-General Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total State	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
Local Government	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Employer	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
Total Employee	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
2013-2015							
General Fund	($0.8)	($3.3)	($0.3)	$0.0	$0.0	$0.0	($4.4)
Non-General Fund	(1.1)	0.0	0.0	0.0	0.0	0.0	(1.1)
Total State	**($1.9)**	**($3.3)**	**($0.3)**	**$0.0**	**$0.0**	**$0.0**	**($5.5)**
Local Government	(2.0)	(1.7)	(0.4)	0.0	0.0	0.0	(4.1)
Total Employer	**($4.0)**	**($5.0)**	**($0.7)**	**$0.0**	**$0.0**	**$0.0**	**($9.6)**
Total Employee	**($3.0)**	**($1.2)**	**($0.3)**	**$0.0**	**$0.0**	**$0.0**	**($4.5)**
2012-2037							
General Fund	($35.8)	($159.9)	($3.9)	$16.9	$0.0	$1.9	($180.7)
Non-General Fund	(51.0)	0.0	0.0	1.8	0.0	21.2	(28.0)
Total State	**($86.8)**	**($159.9)**	**($3.9)**	**$18.7**	**$0.0**	**$23.1**	**($208.7)**
Local Government	(92.8)	(81.3)	(4.8)	5.1	0.0	0.0	(173.8)
Total Employer	**($179.6)**	**($241.2)**	**($8.6)**	**$23.8**	**$0.0**	**$23.1**	**($382.5)**
Total Employee	**($96.9)**	**($184.3)**	**($16.2)**	**$23.7**	**$0.0**	**$1.7**	**($272.0)**

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. Generally, we found affordability remained unchanged and pay-go risks improved.

Pension Score Card				
	Base		Pricing	
Category *(Dollars in Billions)*	**Value**	**Score**	**Value**	**Score**
Affordability				
Chance Pensions will Consume More than 8% of GF-S[1]	6%	80	6%	80
5% Chance GF-S[1] Consumption will Exceed	8.1%	61	8.1%	61
5% Chance Employer Contribution Rate will Exceed	17.3%	54	17.3%	55
Risk				
Chance of PERS 1, TRS 1 in Pay-Go[2]	27%	33	26%	34
Chance of Open Plan in Pay-Go[2]	9%	51	7%	53
5% Chance Annual Pay-Go Cost[3] in PERS 1, TRS 1 Exceed	$1.5	40	$1.5	40
5% Chance Annual Pay-Go Cost[3] in Open Plans Exceed	$9.9	0	$9.1	0
Chance of Total Funded Status Below 60%	26%	36	26%	37
Total Weighted Score		**50**		**50**

[1]*Currently 2.7% of GF-S.*

[2]*When today's value of annual cost exceeds $25 million.*

[3]*Pay-Go costs on top of normal pension costs.*

We found the reduction of the subsidized ERFs improves affordability by lowering required contributions throughout the projection period. However, the impact on affordability risk was minimal as measured under the score card. Under current law, most affordability risks surface in 2024. This corresponds with the year the LEOFF 1 UAAL would need to be fully amortized under pessimistic scenarios.

The reduction of the subsidized ERFs results in smaller assumed open-plan funding shortfalls in the future which increases overall funded status and decreases the chance of pay-go in the open plans. This provision also reduces the open plan pay-go amount since lower benefits are expected.

We also see that changes in the ROR assumption increase pre-funding in all plans over current assumptions, which improves long-term funded status and pay-go risks for all plans.

The combination of the change in ROR assumption and the reduction of the subsidized ERFs results in slightly lower assumed funding shortfalls for both open and closed plans in the future as compared to current law.

Please see Appendix B for further details about how risk measures change under this bill.

Please see our *2010 Risk Assessment Report* (RAR) for additional background on how we developed and how to interpret the risk measures.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best-estimate assumptions or methods selected for this pricing we looked at the impact of varying retirement behavior for the 5 percent subsidized ERF benefit change.

We performed sensitivity analysis on the benefit change for members first hired on or after May 1, 2013. To see how sensitive the results are to assumed retirement behavior, we compared our best-estimate pricing for the ERF benefit change to the following two scenarios:

- **Higher Savings: No Retirement Behavior Change –** In this scenario, we assumed no change in retirement behavior for new hires with at least 30 years of service. In other words, we assumed new hires would retire at the same rate as current members who have access to more favorable early retirement benefits.
- **Lower Savings: Later Retirement –** In this scenario, we assumed new hires with at least 30 years of service would retire later than what we assumed in our best-estimate pricing. Specifically, we assumed new hires would have the same rate of retirement after 30 years of service as they do currently before 30 years of service.

The table below shows the results of our sensitivity analysis. We found that the results were not that sensitive to assumed changes in retirement behavior. This occurs because the savings for later assumed retirement are offset by lower savings from the ERF changes. When we assume no change in retirement behavior (or earlier retirement than under our best-estimate assumptions), the cost of earlier assumed retirement is offset by higher savings from the ERF changes.

Please see Appendix A for our best-estimate results by major provision of the bill.

Sensitivity of Best Estimate Fiscal Impact – 5% ERFs Only			
(Dollars in Millions)	Lower Savings Later Retirement	Best-Estimate	Higher Savings No Retirement Behavior Change
25-Year GF-S	($720.3)	($739.8)	($779.2)
25-Year Total Employer	($1,640.1)	($1,685.1)	($1,771.1)

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 in the footer. We intend this fiscal note to be used by the Legislature during the 2012 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.

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, assumptions, and data may also be reasonable, and might produce different results.
5. The risk analysis summarized in this fiscal note involves the interpretation of many factors and the application of professional judgment. We believe that the data, assumptions, and methods used in our risk assessment model are reasonable and appropriate for the purposes of this pricing exercise. The use of another set of data, assumptions, and methods, however, could also be reasonable and could produce materially different results.
6. We prepared this fiscal note for the 2012 Legislative Session.
7. 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 in the footer of this fiscal note.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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

Matt Smith, FCA, EA, MAAA
State Actuary

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APPENDIX A – INDIVIDUAL COMPONENT COSTS

This Appendix shows the fiscal costs associated with the major provisions of the bill. We show two categories below:

- **ROR Assumption Changes –** The impact of changing the investment return assumption over time.
- **Plans 2/3 Benefit Change –** The impact of reducing subsidized ERFs for newly hired members on or after May 1, 2013.

Please note the sum of each category does not equal the total cost of this proposal due to the interaction of the two categories in our pricing.

The tables below show the impact of changing the investment return assumption according to the following schedule.

- 7.9 percent, beginning July 1, 2013 (already assumed under current law).
- 7.8 percent, beginning July 1, 2015.
- 7.7 percent, beginning July 1, 2017.

Employer Contribution Rate Change By Year – ROR Assumption Changes Only								
FY	PERS 1 UAAL	PERS 2/3 NC	TRS 1 UAAL	TRS 2/3 NC	SERS 2/3 NC	PSERS 2 NC	LEOFF 1 UAAL	WSPRS 1/2 NC
2013	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2014	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2015	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2016	0.08%	0.36%	0.00%	0.37%	0.38%	0.21%	0.00%	0.16%
2017	0.08%	0.36%	0.00%	0.37%	0.38%	0.21%	0.00%	0.16%
2018	0.15%	0.74%	0.00%	0.74%	0.77%	0.50%	0.00%	3.00%
2019	0.15%	0.74%	0.00%	0.74%	0.77%	0.50%	0.00%	3.00%
2020	0.00%	0.67%	0.00%	0.67%	0.68%	0.50%	0.00%	3.38%
2021	0.00%	0.67%	0.00%	0.67%	0.68%	0.50%	0.00%	3.38%
2022	0.00%	0.48%	0.00%	0.53%	0.48%	0.44%	0.00%	2.52%
2023	0.00%	0.48%	0.22%	0.53%	0.48%	0.44%	0.00%	2.52%
2024	0.00%	0.31%	0.00%	0.41%	0.29%	0.36%	0.00%	1.68%
2025	0.00%	0.31%	0.00%	0.41%	0.29%	0.36%	0.00%	1.68%
2026	(0.31%)	0.17%	0.00%	0.31%	0.13%	0.28%	0.00%	0.98%
2027	0.00%	0.17%	0.00%	0.31%	0.13%	0.28%	0.00%	0.98%
2028	0.00%	0.06%	0.00%	0.22%	0.02%	0.21%	0.00%	0.42%
2029	0.00%	0.06%	0.00%	0.22%	0.02%	0.21%	0.00%	0.42%
2030	0.00%	(0.02%)	0.00%	0.15%	(0.06%)	0.15%	0.00%	(0.02%)
2031	0.00%	(0.02%)	0.00%	0.15%	(0.06%)	0.15%	0.00%	(0.02%)
2032	0.00%	(0.08%)	0.00%	0.07%	(0.11%)	0.09%	0.00%	(0.34%)
2033	0.00%	(0.08%)	0.00%	0.07%	(0.11%)	0.09%	0.00%	(0.34%)
2034	0.00%	(0.13%)	0.00%	0.02%	(0.14%)	0.05%	0.00%	(0.60%)
2035	0.00%	(0.13%)	0.00%	0.02%	(0.14%)	0.05%	0.00%	(0.60%)
2036	0.00%	(0.17%)	0.00%	(0.02%)	(0.17%)	0.01%	0.00%	(0.82%)
2037	0.00%	(0.17%)	0.00%	(0.02%)	(0.17%)	0.01%	0.00%	(0.82%)

Budget Impacts – ROR Assumption Changes Only			
(Dollars in Millions)	Fiscal Year 2013	2013-2015	25-Year
General Fund-State	$0.0	$0.0	$536.5
Local Government	$0.0	$0.0	$520.6
Total Employer	$0.0	$0.0	$1,233.7

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.

The lower rate-of-return assumptions will not change actual benefits paid or the actual rate of return the plans experience, but will change the timing of future contributions and dollar amount of future investment returns. As a result, we expect the lower rate-of-return assumptions to temporarily increase contribution requirements resulting in higher employer costs and Plan 2 contribution rates over the next 25 years. For this provision alone, we expect a 25-year total employer cost of over $1.2 billion. We expect a 50-year total employer savings of approximately $4 billion from the additional prefunding that occurs during the next 25 years.

The tables below show the impact of changing subsidized ERFs for Plans 2/3 members hired on or after May 1, 2013.

Contribution Rate Change By Year – Plans 2/3 Benefit Change Only					
FY	PERS 1 UAAL	PERS 2/3 NC	TRS 1 UAAL	TRS 2/3 NC	SERS 2/3 NC
2013	0.00%	0.00%	0.00%	0.00%	0.00%
2014	0.00%	(0.01%)	0.00%	(0.05%)	(0.02%)
2015	0.00%	(0.01%)	0.00%	(0.05%)	(0.02%)
2016	0.00%	(0.06%)	0.00%	(0.13%)	(0.05%)
2017	0.00%	(0.06%)	0.00%	(0.13%)	(0.05%)
2018	0.00%	(0.10%)	0.00%	(0.21%)	(0.08%)
2019	0.00%	(0.10%)	0.00%	(0.21%)	(0.08%)
2020	0.00%	(0.13%)	0.00%	(0.27%)	(0.10%)
2021	0.00%	(0.13%)	0.00%	(0.27%)	(0.10%)
2022	0.00%	(0.17%)	0.02%	(0.31%)	(0.13%)
2023	0.00%	(0.17%)	0.00%	(0.31%)	(0.13%)
2024	0.00%	(0.19%)	0.00%	(0.34%)	(0.14%)
2025	0.01%	(0.19%)	0.00%	(0.34%)	(0.14%)
2026	0.00%	(0.20%)	0.00%	(0.36%)	(0.15%)
2027	0.00%	(0.20%)	0.00%	(0.36%)	(0.15%)
2028	0.00%	(0.21%)	0.00%	(0.38%)	(0.16%)
2029	0.00%	(0.21%)	0.00%	(0.38%)	(0.16%)
2030	0.00%	(0.22%)	0.00%	(0.39%)	(0.16%)
2031	0.00%	(0.22%)	0.00%	(0.39%)	(0.16%)
2032	0.00%	(0.22%)	0.00%	(0.40%)	(0.17%)
2033	0.00%	(0.22%)	0.00%	(0.40%)	(0.17%)
2034	0.00%	(0.23%)	0.00%	(0.40%)	(0.16%)
2035	0.00%	(0.23%)	0.00%	(0.40%)	(0.16%)
2036	0.00%	(0.23%)	0.00%	(0.41%)	(0.16%)
2037	0.00%	(0.23%)	0.00%	(0.41%)	(0.16%)

Budget Impacts - Plans 2/3 Benefit Change Only			
(Dollars in Millions)	Fiscal Year 2013	2013-2015	25-Year
General Fund-State	$0.0	($4.0)	($739.8)
Local Government	$0.0	($3.1)	($727.3)
Total Employer	$0.0	($7.7)	($1,685.1)

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.

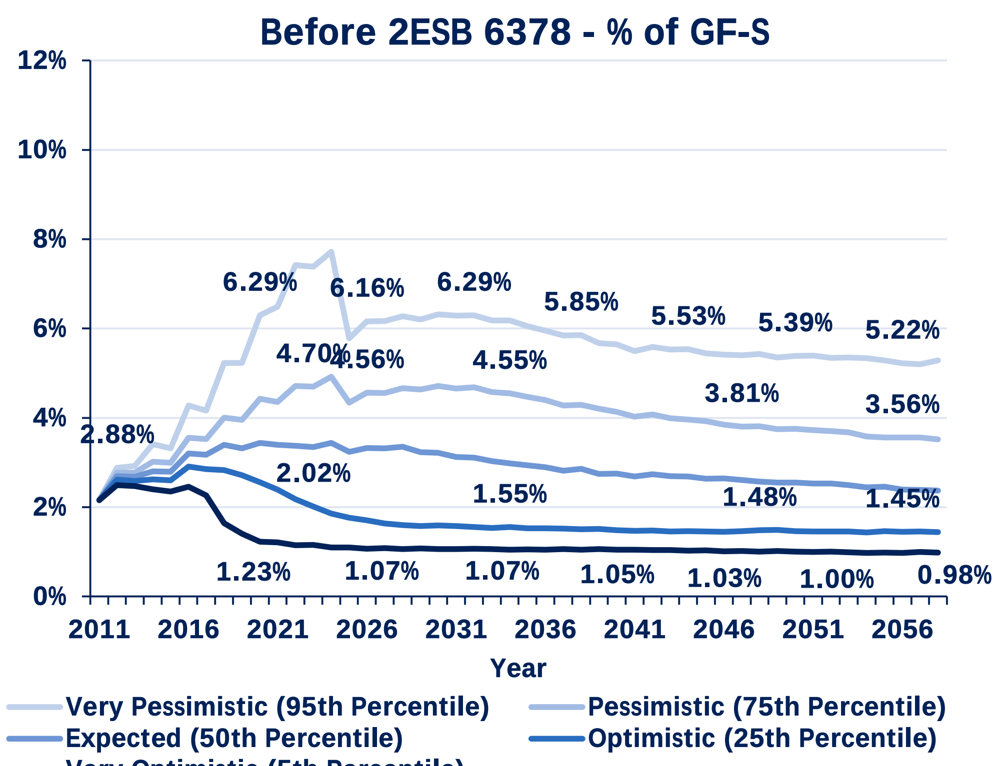
APPENDIX B – HOW THE RISK MEASURES CHANGED (FULL PROPOSAL)

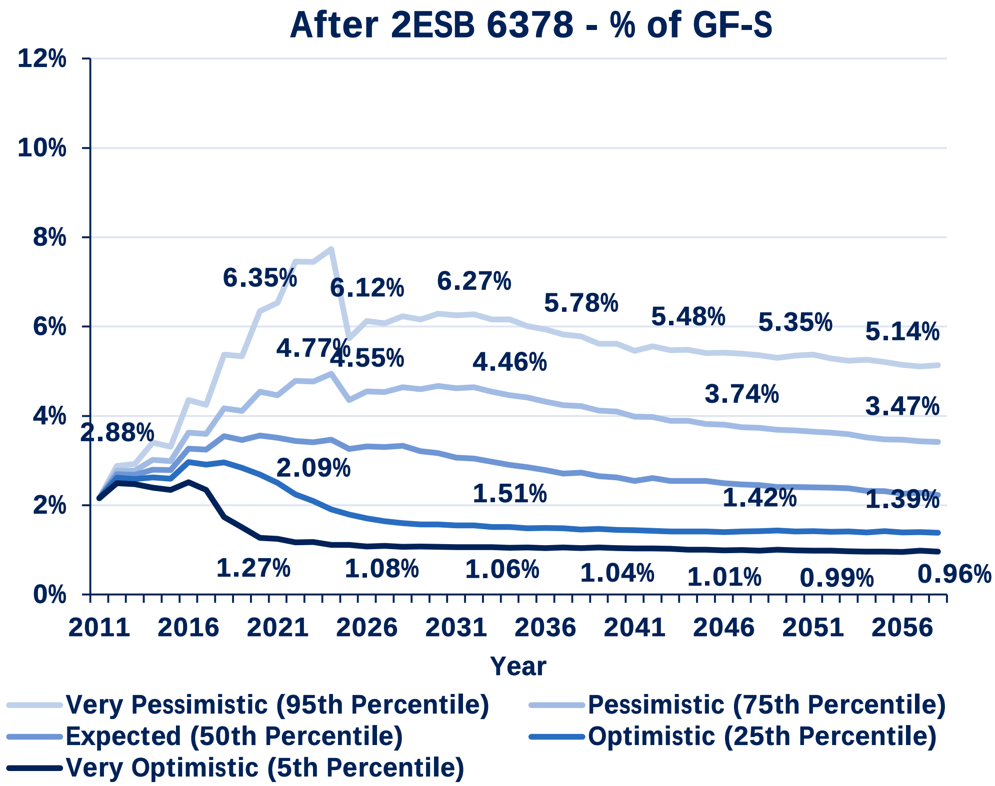
Two impacts that we don't see on the scorecard shown in the body of the fiscal note include:

- **Long-Term Affordability –** Long-term affordability improves based on both the reduction of the subsidized ERFs for new hires and the increased pre-funding associated with lower ROR assumptions.
- **Current Plan 2 Member Contribution Rates –** Plan 2 member contribution rates are expected to decrease in the long-term.

The graphs below show these two impacts. Please note that the "Before 2ESB 6378" graphs include the PFC's adoption of new economic assumptions as shown in the table on page 4 of this fiscal note.

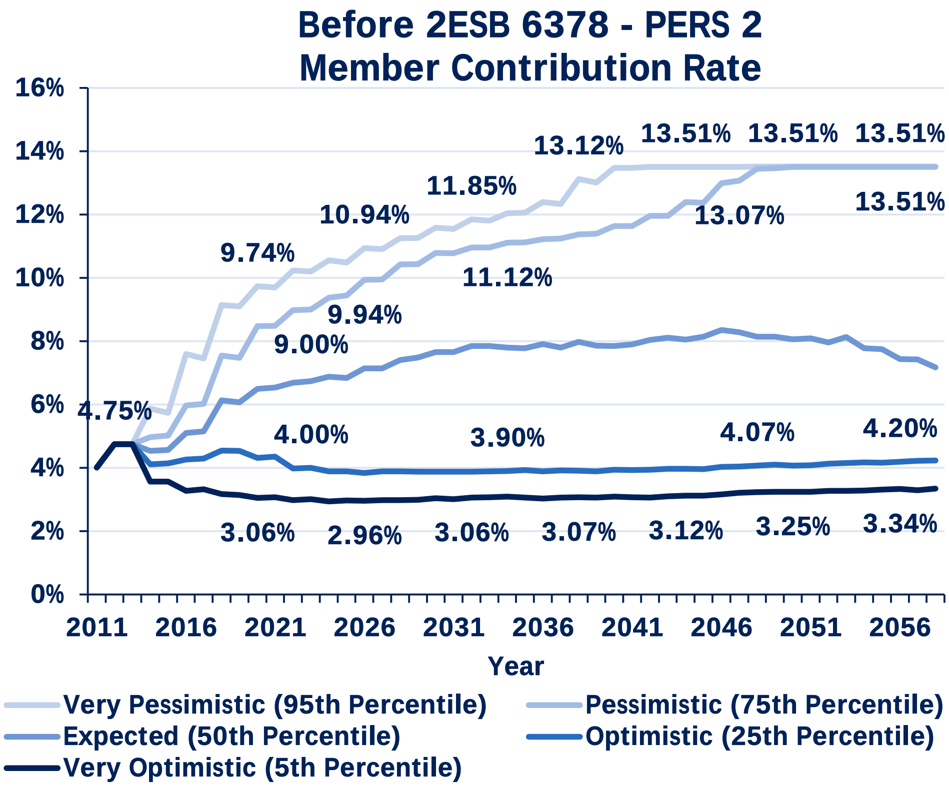
First, the percent of GF-S shows the short-term increase in cost due to the ROR assumption changes and the long-term decrease in costs associated with this bill. More specifically, the right portion of these two graphs can be compared to see the longer-term impact. Under the full range of optimistic to pessimistic scenarios, this bill will have lower costs.

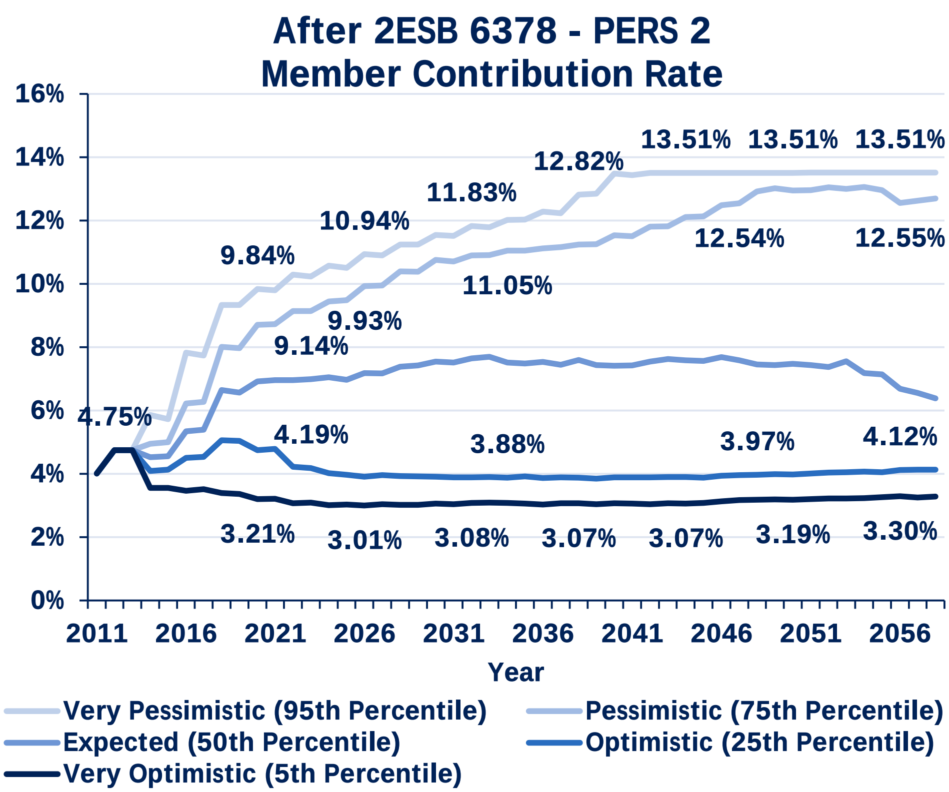


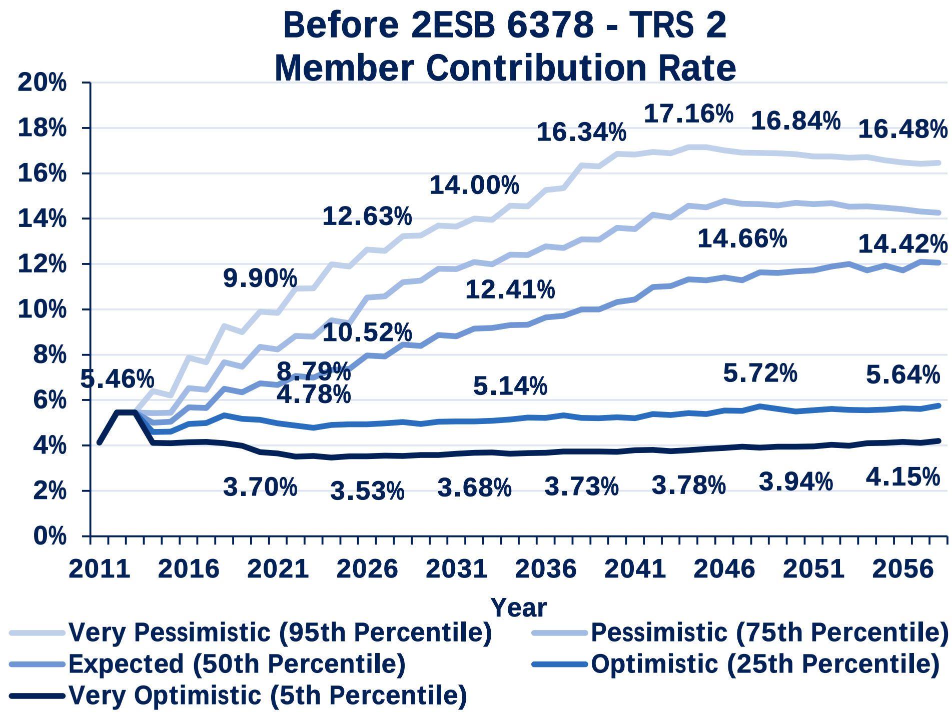


The following contribution rate graphs show how Plan 2 members will be impacted by this bill. Generally, this shows a consistent, but more thorough, analysis to what we displayed and discussed in the body of the fiscal note for the Plans 2/3 rate changes by year.

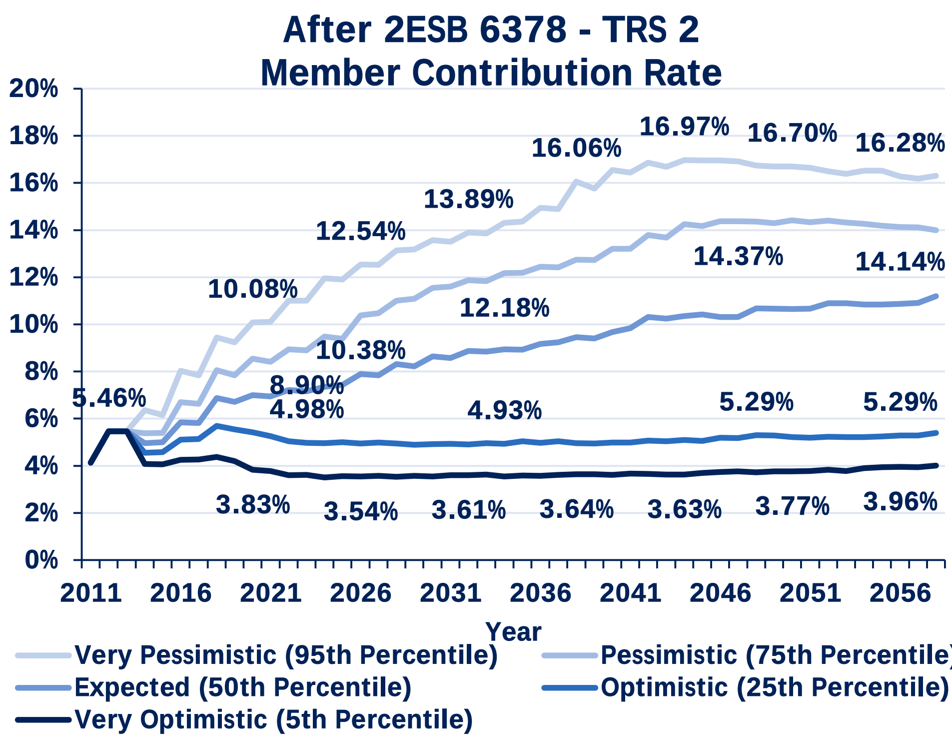
Generally, when we compare the "before" graphs to the "after" graphs, we see that PERS and TRS Plan 2 member contribution rates initially increase due to the ROR assumption changes, and then decrease in the long-term due to the reduction of subsidized ERFs for new hires and the additional pre-funding under the ROR assumption changes. These graphs produce the same general contribution rate change patterns shown on page 9 of this fiscal note. SERS has a similar impact as PERS.


Before 2ESB 6378 - PERS 2
Member Contribution Rate
16%
14%
12%
10%
8%
6%
4%
2%
0%
4.75%
9.74%
10.94%
11.85%
13.12%
13.51%
13.51%
13.51%
13.07%
13.51%
11.12%
9.94%
9.00%
4.00%
3.90%
4.07%
4.20%
3.06%
2.96%
3.06%
3.07%
3.12%
3.25%
3.34%
2011
2016
2021
2026
2031
2036
2041
2046
2051
2056
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)


After 2ESB 6378 - PERS 2
Member Contribution Rate
16%
14%
12%
10%
8%
6%
4%
2%
0%
4.75%
9.84%
10.94%
11.83%
12.82%
13.51%
13.51%
13.51%
12.54%
12.55%
11.05%
9.93%
9.14%
4.19%
3.88%
3.97%
4.12%
3.21%
3.01%
3.08%
3.07%
3.07%
3.19%
3.30%
2011
2016
2021
2026
2031
2036
2041
2046
2051
2056
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)



*Excludes member maximum rates under RCW 41.45.061.



*Excludes member maximum rates under RCW 41.45.061.

APPENDIX C – ASSUMPTIONS WE MADE

In addition to the assumption changes outlined in the body of this fiscal note, we updated the new entrant profile used in our projection system for both the "base" and "pricing" projections.

In order to ensure that we ran the same new entrant population through each projection (regardless of the percent going into Plan 2 versus Plan 3), we updated our new entrant profile for this pricing. This updated new entrant profile is a weighted average of two-thirds of our current Plan 2 new entrant database and one-third of our current Plan 3 new entrant database. This updated new entrant profile in our projection system allows us to consistently project the same future members to the pension system no matter what percent goes into Plan 2 or Plan 3.

Below, we show the new entrant profiles we used for PERS, TRS, and SERS in our projections.

New Entrant Profiles											
PERS				TRS				SERS			
Age	Salary	Sex	Weight	Age	Salary	Sex	Weight	Age	Salary	Sex	Weight
24	$34,000	M	10.5%	25	$50,533	M	6.7%	24	$19,167	M	3.0%
24	$34,000	F	10.5%	25	$50,533	F	15.6%	24	$19,167	F	12.1%
29	$38,800	M	9.8%	29	$53,400	M	8.6%	29	$20,400	M	2.6%
29	$38,800	F	9.8%	29	$53,400	F	20.0%	29	$20,400	F	10.3%
34	$41,133	M	7.3%	34	$55,300	M	4.5%	34	$19,433	M	2.6%
34	$41,133	F	7.3%	34	$55,300	F	10.6%	34	$19,433	F	10.6%
39	$41,700	M	5.8%	39	$55,467	M	3.0%	39	$18,733	M	3.2%
39	$41,700	F	5.8%	39	$55,467	F	7.1%	39	$18,733	F	12.9%
44	$41,733	M	5.3%	44	$56,067	M	2.7%	44	$18,767	M	3.1%
44	$41,733	F	5.3%	44	$56,067	F	6.4%	44	$18,767	F	12.4%
49	$42,200	M	4.5%	49	$56,733	M	2.0%	49	$19,467	M	2.2%
49	$42,200	F	4.5%	49	$56,733	F	4.7%	49	$19,467	F	9.0%
57	$43,433	M	6.7%	56	$62,767	M	2.4%	57	$19,467	M	3.2%
57	$43,433	F	6.7%	56	$62,767	F	5.7%	57	$19,467	F	12.7%

We changed the retirement assumptions in PERS, TRS, and SERS Plans 2/3 for members hired after May 1, 2013. We expect those members to work longer due to lower subsidized ERFs than current members. The table below displays those retirement rates.

	PERS 2/3 (SVC >= 30)				SERS 2/3 (SVC >= 30)			
	Current Rates		Pricing Rates		Current Rates		Pricing Rates	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	0.13	0.14	0.062	0.065	0.13	0.14	0.062	0.065
56	0.12	0.12	0.062	0.062	0.12	0.12	0.062	0.062
57	0.13	0.13	0.069	0.069	0.13	0.13	0.069	0.069
58	0.14	0.13	0.099	0.071	0.14	0.13	0.099	0.071
59	0.18	0.28	0.118	0.139	0.18	0.28	0.118	0.139
60	0.14	0.15	0.112	0.117	0.14	0.15	0.112	0.117
61	0.22	0.20	0.149	0.156	0.22	0.20	0.149	0.156
62	0.33	0.29	0.287	0.252	0.33	0.29	0.287	0.252
63	0.25	0.25	0.224	0.224	0.25	0.25	0.224	0.224
64	0.60	0.60	0.576	0.576	0.55	0.55	0.526	0.526
65	0.45	0.45	0.450	0.450	0.45	0.45	0.450	0.450

	TRS 2/3							
	Current Rates				Pricing Rates			
	Svc = 30		Svc >= 31		Svc = 30		Svc >= 31	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	0.24	0.21	0.15	0.13	0.097	0.081	0.069	0.055
56	0.23	0.23	0.17	0.15	0.101	0.101	0.080	0.073
57	0.25	0.25	0.18	0.16	0.115	0.140	0.088	0.105
58	0.31	0.27	0.20	0.18	0.146	0.153	0.100	0.115
59	0.38	0.29	0.21	0.24	0.182	0.166	0.108	0.144
60	0.41	0.32	0.23	0.21	0.244	0.193	0.164	0.144
61	0.48	0.43	0.24	0.24	0.277	0.260	0.169	0.174
62	0.60	0.60	0.40	0.35	0.410	0.410	0.318	0.296
63	0.50	0.50	0.30	0.30	0.346	0.372	0.249	0.274
64	0.55	0.50	0.55	0.50	0.526	0.476	0.526	0.476
65	0.50	0.45	0.50	0.45	0.500	0.450	0.500	0.450

For purposes of pricing the Plans 2/3 benefit change only (that provision by itself), we used the economic assumptions as disclosed in the AVR. For purposes of pricing the Plans 2/3 benefit change with the other provisions of this bill, we used the economic assumptions as disclosed in the body of this fiscal note.

Otherwise, we developed these costs using the assumptions as disclosed in the AVR.

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 actuarial accrued 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) based on the PUC method.

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.

GLOSSARY OF RISK TERMS

Affordability: Measures the affordability of the pension systems. Affordability risk measures the chance that pension contributions will cross certain thresholds with regards to the General-Fund and contribution rates.

"Current Law": Scenarios in which assumptions about Legislative behavior are excluded. These scenarios show projections regarding the current state of Washington statutes.

Optimistic: A measurement of the pension system under favorable conditions (above expected investment returns, for example). Optimistic refers to the 75th percentile, where there is a 25 percent chance of the measurement being better and 75 percent chance of the measurement being worse. Very optimistic refers to the 95th percentile.

"Past Practices": Scenarios in which assumptions regarding Legislative behavior are introduced. These assumptions include actual contributions below what are actuarially required and improving benefits over time. These scenarios are meant to project past behavior into the future.

Pay-Go: The trust fund runs out of assets, and payments from the General-Fund must be made to meet contractual obligations.

Pessimistic: A measurement of the pension system under unfavorable conditions (below expected investment returns, for example). Pessimistic refers to the 25th percentile, where there is a 75 percent chance of the measurement being better and 25 percent chance of the measurement being worse. Very pessimistic refers to the 5th percentile.

Premature Pay-Go: Pay-go payments, measured in today's value, which might be considered "significant" in terms of the potential impact on the General-Fund.

Risk: Measures the risk metrics of the pension systems, including the chance that the pension systems will prematurely run out of assets, the amount of potential pay-go contributions, and the chance that the funded status will cross a certain threshold.

Risk Tolerance: The amount of risk an individual or group is willing to accept with regards to the likelihood and severity of unfavorable outcomes.