



Office of the State Actuary

"Securing tomorrow's pensions today."

March 30, 2011

Senator Lisa Brown
Senate Majority Leader
PO Box 40403
Olympia, WA 98504-0403

Senator Mike Hewitt
Senate Minority Leader
PO Box 40416
Olympia, WA 98504-0416

Mr. James McIntire
State Treasurer and GET Committee Member
PO Box 40200
Olympia, WA 98504-0200

Mr. Marty Brown
Director
Office of Financial Management and GET Committee Member
PO Box 43113
Olympia, WA 98504-3113

RE: 2011 GET SOLVENCY ANALYSIS

Dear Senators Brown and Hewitt, Treasurer McIntire, and Director Brown:

We completed our 2011 solvency analysis on the Guaranteed Education Tuition (GET) program and the proposed changes under Substitute Senate Bill (SSB) 5749 (2011 Session) ("GET 2"). This letter documents the results of our analysis.

Executive Summary

Should GET's future assets fail to meet the program's future obligations, the state must contribute money to the GET fund to maintain the program's solvency. In our 2011 GET solvency analysis, we reviewed the risk and potential amount of a future state contribution under both the current program and GET 2.

The big "drivers" of GET solvency are the cost of tuition, investment returns, and purchaser behavior. First, the program's payout liability for the GET units depends on the cost of tuition at the time of payout. Secondly, the program relies on investment



returns to help GET keep pace with increases in tuition costs. Lastly, the GET program depends on revenue from future purchasers to maintain reserves to address both past losses and future unexpected experience losses.

We also performed “stress tests” to determine how the current program and GET 2 would fare under high levels of future tuition growth combined with poor investment experience. Lastly, we evaluated how an increase in long-term assumed tuition growth for future GET pricing would impact the program’s ability to weather these potential stresses.

Summary of Findings

1. If GET remains open under its current terms, there is a 0.7 percent chance that state contributions will be required over the next 50 years. The dollar amount under worst case conditions would be \$4.6 billion.
2. The chance and amount of a potential state contribution would decrease under GET 2 to 0.4 percent and \$3.7 billion respectively if the creation of GET 2 does not reduce the average long-term number of future purchasers.
3. Solvency results are very sensitive to changes in assumed purchaser behavior.
4. If the creation of GET 2 reduces the assumed annual number of units purchased by 800,000 (about 50 percent), the chance and amount of a potential state contribution would increase to 7.2 percent and \$15.9 billion respectively.
5. Both the current program and GET 2 can withstand unfavorable tuition and investment growth experience for many years if the program prices future GET units with a long-term tuition growth assumption of 9.5 percent.

Summary of Analysis

We began our analysis by updating the customized actuarial model we constructed to complete the *2009 GET Solvency Study*. Instead of modeling GET’s solvency using expected long-term assumptions that remain static over a projection period (“deterministic” assumptions), our customized model allows us to model the future value of the program’s assets and liabilities for both existing and future GET contracts using probabilistic assumptions. The use of probabilistic assumptions allows us to model the expected variability of future economic outcomes (i.e., annual asset and tuition growth) and the correlation between economic variables. Please see our [2009 GET Solvency Study](#) for additional background and details on the model we used for this analysis.



After successfully updating our 2009 model with the latest GET data, assumptions, and methods, we analyzed what would happen to GET solvency if the program remains open and keeps its current structure (“current program”). We summarized the results of our analysis using a “solvency report card.” The grades are relative, not absolute. We designed the score card to simplify comparisons between scenarios. Please see the *2009 GET Solvency Study* for more background on the development and use of the solvency report card.

Solvency Report Card – Current Program				
Category	Value	Score	Grade	Weight
Probability of State Contributions	0.7%	96	A	25%
Worst Case 50-Year State Contributions (millions)	\$4,618	85	B	25%
Average Funded Status	107%	93	A	20%
Probability of Funded Status Under 50%	20.3%	60	D	20%
Average Annual Change in Premium Level	0.93%	96	A	10%
Total Solvency Score		85	B	100%

We included an analysis of the current program because it provides insights into solvency risks within the current program. Also, it serves as a baseline for comparing what would happen to GET solvency when the current program changes.

Next we evaluated what would happen to the program’s solvency risks under GET 2. At the highest level, GET 2 lowers the future payout value of GET units, and hence the state guarantee provided under the program for future purchasers. Please see Appendix A for a copy of SSB 5749, which defines the terms of GET 2.

Solvency Report Card – GET 2*				
Category	Value	Score	Grade	Weight
Probability of State Contributions	0.4%	98	A	25%
Worst Case 50-Year State Contributions (millions)	\$3,657	88	B	25%
Average Funded Status	103%	89	B	20%
Probability of Funded Status Under 50%	21.1%	58	F	20%
Average Annual Change in Premium Level	0.87%	96	A	10%
Total Solvency Score		86	B	100%

* GET 2 “weighted average” tuition value includes community colleges. See Appendix D for solvency results excluding community colleges.

The reduced payout value under GET 2 lowers the chance of state contributions from 0.7 percent to 0.4 percent and lowers the worst case 50-year state contributions from \$4.6 to \$3.7 billion. As a result, the solvency report card increases from an 85 under the current program to 86 under GET 2.



As we reported in the *2009 GET Solvency Study*, solvency results are very sensitive to changes in future purchaser behavior. Program changes like GET 2 could lower consumer confidence in the state’s guarantee under GET. Should that occur, solvency results weaken.

We evaluated both a 200,000 drop in assumed annual units sold under GET 2 (about 12.5 percent) and an 800,000 drop in assumed annual units sold (about 50 percent) to demonstrate how GET 2’s solvency results could change if consumer confidence in the program drops. These do not represent best-estimate assumptions for the potential loss of future purchasers. Accurately modeling future purchaser behavior is quite challenging. Futures sales can drop for many reasons including, but not limited to, a loss of confidence in the program after a program change, marketing changes, decreases in disposable income, etc. In this case, we’re modeling the potential impact of a loss in consumer confidence in the program from the introduction of GET 2.

Solvency Report Card – GET 2 Loss of 200,000 Annual Units Sold				
Category	Value	Score	Grade	Weight
Probability of State Contributions	0.8%	95	A	25%
Worst Case 50-Year State Contributions (millions)	\$6,710	78	C	25%
Average Funded Status	102%	89	B	20%
Probability of Funded Status Under 50%	23.4%	54	F	20%
Average Annual Change in Premium Level	0.86%	96	A	10%
Total Solvency Score		81	B	100%

Solvency Report Card – GET 2 Loss of 800,000 Annual Units Sold				
Category	Value	Score	Grade	Weight
Probability of State Contributions	7.2%	53	F	25%
Worst Case 50-Year State Contributions (millions)	\$15,927	47	F	25%
Average Funded Status	97%	84	B	20%
Probability of Funded Status Under 50%	32.9%	35	F	20%
Average Annual Change in Premium Level	0.79%	97	A	10%
Total Solvency Score		59	F	100%

A drop in future purchases limits the program’s ability to replenish existing reserves and recover from past experience losses (recent high tuition growth and asset losses from the Great Recession). We found a 200,000 drop in assumed annual units sold increases the chance of state contributions under GET 2 from 0.4 to 0.8 percent and the worst case state contribution amounts increase from \$3.7 to \$6.7 billion. If GET 2 creates an 800,000 drop in assumed annual units sold, we found the chance of state contributions increases to 7.2 percent and the worst case state contributions increase to nearly \$16 billion.



Summary of Stress Testing

In addition to our probabilistic analysis, we evaluated how long the current program and GET 2 can withstand continued unfavorable tuition and investment growth experience. Additionally, we evaluated how a change in pricing strategy impacts GET's ability to weather this unfavorable experience. We refer to this analysis as "stress testing."

Specifically, we performed the following stress tests on both the current program and GET 2:

- ❖ **High tuition growth** - Long-term tuition growth of 10, 15, 20, and 25 percent per year (four tests; program currently assumes 7.5 percent per year).
- ❖ **High tuition and low investment growth** – Same as above plus 4.00 percent annual investment return (program currently assumes 6.63 percent per year).
- ❖ **High tuition growth and low investment growth with pricing at 9.5 percent tuition growth** – Same as second test above except future GET units sold with an assumed long-term tuition growth of 9.5 percent (program currently assumes 7.5 percent per year).

These stress tests do not represent our best estimates like the solvency report cards in the earlier section. In many cases, they don't even represent likely outcomes. However, they do provide valuable insights on how long the program can withstand poor experience and how a different pricing strategy may strengthen the program's future soundness.

The output from our stress testing varies from the solvency report cards. As mentioned above, the assumptions for stress testing do not represent best-estimate assumptions for long-term tuition growth (currently 7.50 percent) or for long-term rate of investment return (currently 6.63 percent). Since they don't represent best estimates, we don't provide a chance or probability of insolvency. Rather, we measure whether insolvency occurs under the stress test ("insolvency?") and record the year insolvency occurs ("year of insolvency") and the amount of insolvency ("50-year state contribution").



Stress Test – High Tuition Growth Current Program			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition Growth	No	N/A	N/A
15% Tuition Growth	Yes	\$32,695	2029
20% Tuition Growth	Yes	\$49,379	2024
25% Tuition Growth	Yes	\$88,436	2022

Stress Test – High Tuition Growth GET 2			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition Growth	No	N/A	N/A
15% Tuition Growth	Yes	\$28,190	2029
20% Tuition Growth	Yes	\$42,502	2024
25% Tuition Growth	Yes	\$75,922	2022

Both the current program and GET 2 pass this stress test at the 10 percent long-term tuition growth level only. We would not expect the program to pass all the tests since the 15, 20, and 25 percent tuition growth levels from the stress test exceed the current long-term tuition growth assumption of 7.50 percent by a factor of 2.00, 2.67, and 3.33 respectively.

Stress Test – High Tuition and Low Investment Growth Current Program			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition and 4% Investment Growth	No	N/A	N/A
15% Tuition and 4% Investment Growth	Yes	\$26,179	2027
20% Tuition and 4% Investment Growth	Yes	\$43,298	2023
25% Tuition and 4% Investment Growth	Yes	\$78,338	2021

Stress Test – High Tuition and Low Investment Growth GET 2			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition and 4% Investment Growth	No	N/A	N/A
15% Tuition and 4% Investment Growth	Yes	\$23,196	2027
20% Tuition and 4% Investment Growth	Yes	\$38,363	2023
25% Tuition and 4% Investment Growth	Yes	\$69,147	2021

In this stress test, both the current program and GET 2 pass at the 10 percent long-term tuition growth level only, but program insolvency under the other tuition growth levels occurs sooner due to lower assets from weaker assumed investment returns. Again, we



would not expect the program to pass all the tests since the 15, 20, and 25 percent tuition growth levels from the stress test exceed the current long-term tuition growth assumption of 7.50 percent by a factor of 2.00, 2.67, and 3.33 respectively. Additionally, in this stress test we have the additional stress of 4 percent annual investment growth instead of the current long-term assumption of 6.63 percent.

You may also notice that the 50-year state contribution amounts drop under this stress test. This occurs because an earlier date of insolvency results in an earlier assumed termination of the program with lower liabilities.

Stress Test – High Tuition and Low Investment Growth; Pricing at 9.5% Tuition Growth Current Program			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition and 4% Investment Growth	No	N/A	N/A
15% Tuition and 4% Investment Growth	No	N/A	N/A
20% Tuition and 4% Investment Growth	Yes	\$53,920	2025
25% Tuition and 4% Investment Growth	Yes	\$89,350	2022

Stress Test – High Tuition and Low Investment Growth; Pricing at 9.5% Tuition Growth GET 2			
<i>(\$ in millions)</i>	Insolvency?	50-Year State Contribution	Year of Insolvency
10% Tuition and 4% Investment Growth	No	N/A	N/A
15% Tuition and 4% Investment Growth	No	N/A	N/A
20% Tuition and 4% Investment Growth	Yes	\$45,398	2025
25% Tuition and 4% Investment Growth	Yes	\$72,878	2022

Pricing future GET units with a long-term tuition growth assumption of 9.5 percent instead of 7.5 percent enables both the current program and GET 2 to pass at both the 10 and 15 percent long-term tuition growth levels. This pricing strategy extends the year of insolvency under the other tuition growth levels which also increases the amount of insolvency since it would include more contracts and contracts at a higher payout value.

For the stress testing only, we assumed a 15-year rolling amortization of unfunded liability at each future price setting. We further assumed plan closure after the year of initial insolvency.

Please see Appendix B for more detailed results of the stress testing.



Data We Used

We relied on participant and asset data provided by GET program staff and relied on asset data provided by the Washington State Investment Board (WSIB) to perform our analysis. The participant data reflects contract information through March 28, 2011. The asset data reflects actual returns through February 28, 2011. We did not audit this data and have relied on the data as complete and accurate for purposes of this analysis.

Assumptions We Made

Most of the assumptions we made remain unchanged from those disclosed in our *2009 GET Solvency Study*. We made the following assumption changes to complete this analysis:

Current Program

- ❖ New price-setting guidelines adopted by GET after *2009 GET solvency study*.
- ❖ Four years of above average tuition growth (2011-2015).
- ❖ Updated capital market assumptions for assumed investment returns and volatility.
- ❖ Two million-eight hundred thousand (2.8 million) units purchased during 2011 enrollment.
- ❖ Increased standard deviation of annual units purchased.
- ❖ Decreased the assumed percentage of “investor” type purchasers from 50 to 30 percent.

GET 2

For the pricing of GET 2, we made all the changes described above plus the following changes:

- ❖ Lower unit value for future purchases.
- ❖ New annual expected and standard deviation of tuition growth.
- ❖ Increase in assumed number of annual units purchased due to lower price from reduced payout value.

Please see Appendix C for more details on the assumption changes we made to complete our analysis.



How We Applied The Assumptions

Nearly all the methods we used remain unchanged from those disclosed in our *2009 GET Solvency Study*. We made the following method changes to complete this analysis:

Current Program

We replaced stochastic output with deterministic output (100 percent likelihood) for the following variables:

- ❖ Tuition growth during 2011-2013.
- ❖ Number of units purchased during 2011 enrollment.

GET 2

For the pricing of GET 2, we made all the method changes described above plus we modeled one-tiered pricing for all future units purchased after the effective date of GET 2. SSB 5749 may allow current contract holders to purchase additional units under the terms and conditions of the current program even after the effective date of GET 2. Effectively, this would create two tiers of pricing under the program. We have not included the impact of two-tiered pricing in our analysis.

Otherwise, the methods we used are consistent with the methods disclosed in the *2009 GET Solvency Study*.

Actuarial Certification

We prepared this analysis to assist the Legislature, GET Committee, and Office of Financial Management (OFM) in evaluating the current solvency of GET and how that might change under SSB 5749 (2011 session) and under a different pricing strategy. Please do not use this analysis for other purposes.

This analysis involves calculations that require assumptions about future economic and demographic events. Actuarial Standards of Practice (ASOP) for prepaid tuition programs have not been defined within the actuarial profession. We used the ASOPs for pensions where possible to guide our analysis of GET. We believe that the assumptions, methods, and calculations used in this analysis are reasonable and appropriate for the primary purpose as stated above, and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this letter. The use of another set of assumptions and methods, however, could also be reasonable and could produce materially different results.

Since the analysis is based on assumptions about future events, actual results will differ to the extent that future experience differs from those assumptions. Significant differences



between the actual and assumed number of 2011 enrollments will impact the results. This analysis will need to be updated in the future if the Legislature enacts either major reform to current tuition policy or other changes to GET.

The GET Program staff provided the participant, asset, and historical data to us. WSIB also provided recent asset data to us. We checked the data for reasonableness as appropriate based on the purpose of this analysis. An audit of the data was not performed. We relied on all the information provided as complete and accurate. In our opinion, this information is adequate and substantially complete for the purposes of this analysis.

We advise readers of this analysis 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 communication as a whole. Distribution of, or reliance on, only parts of this analysis could result in its misuse and may mislead others.

The analysis in this letter could become outdated very quickly. Please replace this analysis with any future solvency analysis.

Consistent with the Code of Professional Conduct that applies to actuaries, I (Matthew Smith) must disclose any potential conflict of interest. I have purchased units in GET; however, this does not impair my ability to act fairly. I have performed all analysis without bias or influence. The Legislature mandated the Office of the State Actuary to perform actuarial services for GET during the remainder of the 2011-13 Biennium and I supervised the actuarial analysis performed.



The undersigned, with actuarial credentials, met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein and are available to provide extra guidance and explanations as needed.

Sincerely,

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

Troy Dempsey, ASA, EA, MAAA
Actuary

cc: Senator Ed Murray, Chair
Senate Committee on Ways & Means
Senator Rodney Tom, Chair
Senate Committee on Higher Education & Workforce Development
Representative Ross Hunter, Chair
House Committee on Ways & Means
Representative Larry Seaquist, Chair
House Committee on Higher Education
Don Bennett, Executive Director
Higher Education Coordinating Board
Betty Lochner, Director
Guaranteed Education Tuition
Staff

O:\Session\2011\GET\Final_2011_GET_Solvency_Analysis.docx



Appendix A – SSB 5749

S-1715.1

SUBSTITUTE SENATE BILL 5749

State of Washington 62nd Legislature 2011 Regular Session

By Senate Higher Education & Workforce Development (originally sponsored by Senators Brown, Hewitt, and Shin)

READ FIRST TIME 02/21/11.

1 AN ACT Relating to the Washington advanced college tuition payment
2 program; amending RCW 28B.95.020, 28B.95.030, and 28B.95.110; and
3 adding new sections to chapter 28B.95 RCW.

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

5 **Sec. 1.** RCW 28B.95.020 and 2007 c 405 s 8 are each amended to read
6 as follows:

7 The definitions in this section apply throughout this chapter,
8 unless the context clearly requires otherwise.

9 (1) "Academic year" means the regular nine-month, three-quarter, or
10 two-semester period annually occurring between August 1st and July
11 31st.

12 (2) "Account" means the Washington advanced college tuition payment
13 program account established for the deposit of all money received by
14 the board from eligible purchasers and interest earnings on investments
15 of funds in the account, as well as for all expenditures on behalf of
16 eligible beneficiaries for the redemption of tuition units and for the
17 development of any authorized college savings program pursuant to RCW
18 28B.95.150.



1 (3) "Board" means the higher education coordinating board as
2 defined in chapter 28B.76 RCW.

3 (4) "Committee on advanced tuition payment" or "committee" means a
4 committee of the following members: The state treasurer, the director
5 of the office of financial management, the executive director of the
6 higher education coordinating board, or their designees, and two
7 members to be appointed by the governor for four-year terms, one
8 representing program participants and one private business
9 representative with marketing, public relations, or financial
10 expertise.

11 (5) "Governing body" means the committee empowered by the
12 legislature to administer the Washington advanced college tuition
13 payment program.

14 (6) "Contractual obligation" means a legally binding contract of
15 the state with the purchaser and the beneficiary establishing that
16 purchases of tuition units will be worth the same number of tuition
17 units at the time of redemption as they were worth at the time of the
18 purchase.

19 (7) "Eligible beneficiary" means the person for whom the tuition
20 unit will be redeemed for attendance at an institution of higher
21 education. The beneficiary is that person named by the purchaser at
22 the time that a tuition unit contract is accepted by the governing
23 body. Qualified organizations, as allowed under section 529 of the
24 federal internal revenue code, purchasing tuition unit contracts as
25 future scholarships need not designate a beneficiary at the time of
26 purchase.

27 (8) "Eligible purchaser" means an individual or organization that
28 has entered into a tuition unit contract with the governing body for
29 the purchase of tuition units for an eligible beneficiary. The state
30 of Washington may be an eligible purchaser for purposes of purchasing
31 tuition units to be held for granting Washington college bound
32 scholarships.

33 (9) "Full-time tuition charges" means resident tuition charges at
34 a state institution of higher education for enrollments between ten
35 credits and eighteen credit hours per academic term.

36 (10) "Institution of higher education" means an institution that
37 offers education beyond the secondary level and is recognized by the



1 internal revenue service under chapter 529 of the internal revenue
2 code.

3 (11) "Investment board" means the state investment board as defined
4 in chapter 43.33A RCW.

5 (12) "State institution of higher education" means institutions of
6 higher education as defined in RCW 28B.10.016.

7 (13)(a) "Tuition and fees," for tuition units purchased or
8 contracted for purchase on a custom monthly plan before August 1, 2011,
9 means undergraduate tuition and services and activities fees as defined
10 in RCW 28B.15.020 and 28B.15.041 rounded to the nearest whole dollar.
11 For purposes of this chapter, services and activities fees do not
12 include fees charged for the payment of bonds heretofore or hereafter
13 issued for, or other indebtedness incurred to pay, all or part of the
14 cost of acquiring, constructing, or installing any lands, buildings, or
15 facilities.

16 (b) "Tuition and fees," for eligible purchasers who have entered
17 into a tuition unit contract on or after August 1, 2011, means tuition
18 fees as defined in RCW 28B.15.020 rounded to the nearest whole dollar.

19 (14)(a) "Tuition unit contract" means a contract, for tuition units
20 purchased or contracted for purchase on a custom monthly plan before
21 August 1, 2011, between an eligible purchaser and the governing body,
22 or a successor agency appointed for administration of this chapter, for
23 the purchase of tuition units for a specified beneficiary that may be
24 redeemed at a later date for an equal number of tuition units.

25 (b) "Tuition unit contract" for eligible purchasers who have
26 entered into a tuition unit contract on or after August 1, 2011, means
27 a contract between an eligible purchaser and the governing body, or a
28 successor agency appointed for administration of this chapter, for the
29 purchase of tuition units for a specified beneficiary that may be
30 redeemed at a later date for a value that is equivalent to the price of
31 tuition and fees at the time a purchaser enters into a tuition unit
32 contract multiplied by the average percentage increase of resident
33 undergraduate tuition and fees at all state institutions of higher
34 education weighted by the number of full-time equivalent resident
35 undergraduate students.

36 (15) "Unit purchase price" means the minimum cost to purchase one
37 tuition unit for an eligible beneficiary. Generally, the minimum
38 purchase price is one percent of the undergraduate tuition and fees for



1 the current year, rounded to the nearest whole dollar, adjusted for the
2 costs of administration and adjusted to ensure the actuarial soundness
3 of the account. The analysis for price setting shall also include, but
4 not be limited to consideration of past and projected patterns of
5 tuition increases, program liability, past and projected investment
6 returns, and the need for a prudent stabilization reserve.

7 **Sec. 2.** RCW 28B.95.030 and 2005 c 272 s 2 are each amended to read
8 as follows:

9 This section applies to tuition units purchased or contracted for
10 purchase on a custom monthly plan before August 1, 2011.

11 (1) The Washington advanced college tuition payment program shall
12 be administered by the committee on advanced tuition payment which
13 shall be chaired by the executive director of the board. The committee
14 shall be supported by staff of the board.

15 (2)(a) The Washington advanced college tuition payment program
16 shall consist of the sale of tuition units, which may be redeemed by
17 the beneficiary at a future date for an equal number of tuition units
18 regardless of any increase in the price of tuition, that may have
19 occurred in the interval.

20 (b) Each purchase shall be worth a specific number of or fraction
21 of tuition units at each state institution of higher education as
22 determined by the governing body.

23 (c) The number of tuition units necessary to pay for a full year's,
24 full-time undergraduate tuition and fee charges at a state institution
25 of higher education shall be set by the governing body at the time a
26 purchaser enters into a tuition unit contract.

27 (d) The governing body may limit the number of tuition units
28 purchased by any one purchaser or on behalf of any one beneficiary,
29 however, no limit may be imposed that is less than that necessary to
30 achieve four years of full-time, undergraduate tuition charges at a
31 state institution of higher education. The governing body also may, at
32 its discretion, limit the number of participants, if needed, to ensure
33 the actuarial soundness and integrity of the program.

34 (e) While the Washington advanced college tuition payment program
35 is designed to help all citizens of the state of Washington, the
36 governing body may determine residency requirements for eligible



1 purchasers and eligible beneficiaries to ensure the actuarial soundness
2 and integrity of the program.

3 (3)(a) No tuition unit may be redeemed until two years after the
4 purchase of the unit. Units may be redeemed for enrollment at any
5 institution of higher education that is recognized by the internal
6 revenue service under chapter 529 of the internal revenue code.

7 (b) Units redeemed at a nonstate institution of higher education or
8 for graduate enrollment shall be redeemed at the rate for state public
9 institutions in effect at the time of redemption.

10 (4) The governing body shall determine the conditions under which
11 the tuition benefit may be transferred to another family member. In
12 permitting such transfers, the governing body may not allow the tuition
13 benefit to be bought, sold, bartered, or otherwise exchanged for goods
14 and services by either the beneficiary or the purchaser.

15 (5) The governing body shall administer the Washington advanced
16 college tuition payment program in a manner reasonably designed to be
17 actuarially sound, such that the assets of the trust will be sufficient
18 to defray the obligations of the trust including the costs of
19 administration. The governing body may, at its discretion, discount
20 the minimum purchase price for certain kinds of purchases such as those
21 from families with young children, as long as the actuarial soundness
22 of the account is not jeopardized.

23 (6) The governing body shall annually determine current value of a
24 tuition unit.

25 (7) The governing body shall promote, advertise, and publicize the
26 Washington advanced college tuition payment program.

27 (8) In addition to any other powers conferred by this chapter, the
28 governing body may:

29 (a) Impose reasonable limits on the number of tuition units or
30 units that may be used in any one year;

31 (b) Determine and set any time limits, if necessary, for the use of
32 benefits under this chapter;

33 (c) Impose and collect administrative fees and charges in
34 connection with any transaction under this chapter;

35 (d) Appoint and use advisory committees as needed to provide
36 program direction and guidance;

37 (e) Formulate and adopt all other policies and rules necessary for
38 the efficient administration of the program;



1 (f) Consider the addition of an advanced payment program for room
2 and board contracts and also consider a college savings program;

3 (g) Purchase insurance from insurers licensed to do business in the
4 state, to provide for coverage against any loss in connection with the
5 account's property, assets, or activities or to further insure the
6 value of the tuition units;

7 (h) Make, execute, and deliver contracts, conveyances, and other
8 instruments necessary to the exercise and discharge of its powers and
9 duties under this chapter;

10 (i) Contract for the provision for all or part of the services
11 necessary for the management and operation of the program with other
12 state or nonstate entities authorized to do business in the state;

13 (j) Contract for other services or for goods needed by the
14 governing body in the conduct of its business under this chapter;

15 (k) Contract with financial consultants, actuaries, auditors, and
16 other consultants as necessary to carry out its responsibilities under
17 this chapter;

18 (l) Solicit and accept cash donations and grants from any person,
19 governmental agency, private business, or organization; and

20 (m) Perform all acts necessary and proper to carry out the duties
21 and responsibilities of this program under this chapter.

22 **Sec. 3.** RCW 28B.95.110 and 2005 c 272 s 4 are each amended to read
23 as follows:

24 This section applies to tuition units purchased or contracted for
25 purchase on a custom monthly plan before August 1, 2011.

26 (1) The intent of the Washington advanced college tuition payment
27 program is to redeem tuition units for attendance at an institution of
28 higher education. Refunds shall be issued under specific conditions
29 that may include the following:

30 (a) Certification that the beneficiary, who is eighteen years of
31 age or older, will not attend an institution of higher education, will
32 result in a refund not to exceed the current value, as determined by
33 the governing body, in effect at the time of such certification minus
34 a penalty at the rate established by the governing body. The refund
35 shall be made no sooner than ninety days after such certification, less
36 any administrative processing fees assessed by the governing body;



1 (b) If there is certification of the death or disability of the
2 beneficiary, the refund shall be equal to one hundred percent of any
3 remaining unused tuition units at the current value, as determined by
4 the governing body, at the time that such certification is submitted to
5 the governing body, less any administrative processing fees assessed by
6 the governing body;

7 (c) If there is certification by the student of graduation or
8 program completion, the refund shall be as great as one hundred percent
9 of any remaining unused tuition units at the current value, as
10 determined by the governing body, at the time that such certification
11 is submitted to the governing body, less any administrative processing
12 fees assessed by the governing body. The governing body may, at its
13 discretion, impose a penalty if needed to comply with federal tax
14 rules;

15 (d) If there is certification of other tuition and fee
16 scholarships, which will cover the cost of tuition for the eligible
17 beneficiary. The refund shall be equal to one hundred percent of the
18 current value of tuition units, as determined by the governing body, in
19 effect at the time of the refund request, less any administrative
20 processing fees assessed by the governing body. The refund under this
21 subsection may not exceed the value of the scholarship;

22 (e) Incorrect or misleading information provided by the purchaser
23 or beneficiaries may result in a refund of the purchaser's investment,
24 less any administrative processing fees assessed by the governing body.
25 The value of the refund will not exceed the actual dollar value of the
26 purchaser's contributions; and

27 (f) The governing body may determine other circumstances qualifying
28 for refunds of remaining unused tuition units and may determine the
29 value of that refund.

30 (2) With the exception of subsection (1)(b), (e), and (f) of this
31 section no refunds may be made before the units have been held for two
32 years.

33 NEW SECTION. **Sec. 4.** A new section is added to chapter 28B.95 RCW
34 to read as follows:

35 This section applies to eligible purchasers who have entered into
36 a tuition unit contract on or after August 1, 2011.



1 (1) The Washington advanced college tuition payment program shall
2 be administered by the committee on advanced tuition payment which
3 shall be chaired by the executive director of the board. The committee
4 shall be supported by staff of the board.

5 (2)(a) The Washington advanced college tuition payment program
6 shall consist of the sale of tuition units, which may be redeemed by
7 the beneficiary at a future date. The value of each tuition unit at
8 the time of redemption shall be the price of tuition and fees at the
9 time a purchaser enters into a tuition unit contract multiplied by the
10 average percentage increase of resident undergraduate tuition and fees
11 at all state institutions of higher education weighted by the number of
12 full-time equivalent resident undergraduate students.

13 (b) The governing body may limit the number of tuition units
14 purchased by any one purchaser or on behalf of any one beneficiary.
15 The governing body also may, at its discretion, limit the number of
16 participants, if needed, to ensure the actuarial soundness and
17 integrity of the program.

18 (c) While the Washington advanced college tuition payment program
19 is designed to help all citizens of the state of Washington, the
20 governing body may determine residency requirements for eligible
21 purchasers and eligible beneficiaries to ensure the actuarial soundness
22 and integrity of the program.

23 (3)(a) No tuition unit may be redeemed until two years after the
24 purchase of the unit. Units may be redeemed for enrollment at any
25 institution of higher education that is recognized by the internal
26 revenue service under chapter 529 of the internal revenue code.

27 (b) Units redeemed at a nonstate institution of higher education or
28 for graduate enrollment shall be redeemed at the rate for state public
29 institutions in effect at the time of redemption.

30 (4) The governing body shall determine the conditions under which
31 the tuition benefit may be transferred to another family member. In
32 permitting such transfers, the governing body may not allow the tuition
33 benefit to be bought, sold, bartered, or otherwise exchanged for goods
34 and services by either the beneficiary or the purchaser.

35 (5) The governing body shall administer the Washington advanced
36 college tuition payment program in a manner reasonably designed to be
37 actuarially sound, such that the assets of the trust will be sufficient



1 to defray the obligations of the trust including the costs of
2 administration.

3 (6) The governing body shall annually determine current value of a
4 tuition unit in accordance with subsection (2)(a) of this section.

5 (7) The governing body shall promote, advertise, and publicize the
6 Washington advanced college tuition payment program.

7 (8) In addition to any other powers conferred by this chapter, the
8 governing body may:

9 (a) Impose reasonable limits on the number of tuition units or
10 units that may be used in any one year;

11 (b) Determine and set any time limits, if necessary, for the use of
12 benefits under this chapter, however after redemption of the first
13 tuition unit the remaining units must be used within six years;

14 (c) Impose and collect administrative fees and charges in
15 connection with any transaction under this chapter;

16 (d) Appoint and use advisory committees as needed to provide
17 program direction and guidance;

18 (e) Formulate and adopt all other policies and rules necessary for
19 the efficient administration of the program;

20 (f) Consider the addition of an advanced payment program for room
21 and board contracts and also consider a college savings program;

22 (g) Purchase insurance from insurers licensed to do business in the
23 state, to provide for coverage against any loss in connection with the
24 account's property, assets, or activities or to further insure the
25 value of the tuition units;

26 (h) Make, execute, and deliver contracts, conveyances, and other
27 instruments necessary to the exercise and discharge of its powers and
28 duties under this chapter;

29 (i) Contract for the provision for all or part of the services
30 necessary for the management and operation of the program with other
31 state or nonstate entities authorized to do business in the state;

32 (j) Contract for other services or for goods needed by the
33 governing body in the conduct of its business under this chapter;

34 (k) Contract with financial consultants, actuaries, auditors, and
35 other consultants as necessary to carry out its responsibilities under
36 this chapter;

37 (l) Solicit and accept cash donations and grants from any person,
38 governmental agency, private business, or organization; and



1 (m) Perform all acts necessary and proper to carry out the duties
2 and responsibilities of this program under this chapter.

3 NEW SECTION. **Sec. 5.** A new section is added to chapter 28B.95 RCW
4 to read as follows:

5 This section applies to eligible purchasers who have entered into
6 a tuition unit contract on or after August 1, 2011.

7 (1) The intent of the Washington advanced college tuition payment
8 program is to redeem tuition units for attendance at an institution of
9 higher education. Refunds shall be issued under specific conditions
10 that shall include the following:

11 (a)(i) Certification that the beneficiary, who is eighteen years of
12 age or older, will not attend an institution of higher education, will
13 result in a refund not to exceed the lesser of:

14 (A) The actual dollar value of the purchaser's contributions plus
15 any interest earned as reported by the state investment board; or

16 (B) The price of tuition and fees at the time a purchaser enters
17 into a tuition unit contract multiplied by the average percentage
18 increase of resident undergraduate tuition and fees at all state
19 institutions of higher education weighted by the number of full-time
20 equivalent resident undergraduate students in attendance;

21 (ii) The refund shall be made no sooner than ninety days after the
22 certification in this subsection (1)(a), less any administrative
23 processing fees assessed by the governing body;

24 (b) If there is certification of the death or disability of the
25 beneficiary, the refund shall be equal to one hundred percent of any
26 remaining unused tuition units at the current value, as determined by
27 the governing body, at the time that such certification is submitted to
28 the governing body, less any administrative processing fees assessed by
29 the governing body;

30 (c) If there is certification by the student of graduation or
31 program completion, the refund shall be as great as one hundred percent
32 of any remaining unused tuition units at the current value, as
33 determined by the governing body, at the time that the certification
34 under this subsection (1)(c) is submitted to the governing body, less
35 any administrative processing fees assessed by the governing body. The
36 governing body may, at its discretion, impose a penalty if needed to
37 comply with federal tax rules;



1 (d) If there is certification of other tuition and fee
2 scholarships, which will cover the cost of tuition for the eligible
3 beneficiary, the refund shall be equal to one hundred percent of the
4 current value of tuition units, as determined by the governing body, in
5 effect at the time of the refund request, less any administrative
6 processing fees assessed by the governing body. The refund under this
7 subsection (1)(d) may not exceed the value of the scholarship;

8 (e) Incorrect or misleading information provided by the purchaser
9 or beneficiaries may result in a refund of the purchaser's investment,
10 less any administrative processing fees assessed by the governing body.
11 The value of the refund will not exceed the actual dollar value of the
12 purchaser's contributions; and

13 (f) The governing body may determine other circumstances qualifying
14 for refunds of remaining unused tuition units provided that the value
15 of the refund does not exceed the lesser of:

16 (i) The actual dollar value of the purchaser's contributions plus
17 any interest earned as reported by the state investment board; or

18 (ii) The price of tuition and fees at the time a purchaser enters
19 into a tuition unit contract multiplied by the average percentage
20 increase of resident undergraduate tuition and fees at all state
21 institutions of higher education weighted by the number of full-time
22 equivalent resident undergraduate students in attendance.

23 (2) With the exception of subsection (1)(b), (e), and (f) of this
24 section no refunds may be made before the units have been held for two
25 years.

--- END ---



Appendix B – Detailed Results of Stress Tests

Stress Test – High Tuition Growth Current Program								
Tuition Growth	10%		15%		20%		25%	
	Funded Status	Probability of Stress						
2010	67.40%	30.70%	67.40%	6.40%	67.40%	2.20%	67.40%	0.40%
2012	79.00%	20.80%	72.40%	1.30%	66.60%	0.00%	61.50%	0.00%
2014	81.80%	14.60%	68.80%	0.30%	58.00%	0.00%	49.00%	0.00%
2016	80.50%	10.80%	61.60%	0.00%	46.70%	0.00%	35.10%	0.00%
2018	78.90%	7.40%	54.20%	0.00%	35.70%	0.00%	22.10%	0.00%
2020	77.00%	5.30%	46.40%	0.00%	24.30%	0.00%	9.10%	0.00%
2022	74.80%	4.00%	37.70%	0.00%	11.90%	0.00%	0.00%	0.00%
2024	72.20%	4.00%	27.90%	0.00%	0.00%	0.00%		
2026	69.40%	3.10%	17.10%	0.00%				
2028	66.50%	1.60%	5.40%	0.00%				
2030	64.00%	1.30%						
2032	62.10%	1.40%						
2034	61.00%	1.30%						
2036	60.30%	0.70%						
2038	59.70%	0.40%						
2040	59.30%	0.20%						
2042	58.90%	0.40%						
2044	58.80%	0.20%						
2046	58.90%	0.10%						
2048	59.10%	0.20%						
2050	59.40%	0.20%						
2052	59.60%	0.20%						
2054	59.90%	0.20%						
2056	60.10%	0.00%						
2058	60.30%	0.10%						
2060	60.40%	0.00%						

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth each year from today to the year in the table.



Stress Test – High Tuition Growth GET 2								
Tuition Growth	10%		15%		20%		25%	
	Funded Status	Probability of Stress						
2010	67.4%	30.7%	67.4%	6.4%	67.4%	2.2%	67.4%	0.4%
2012	78.6%	20.8%	72.1%	1.3%	66.4%	0.0%	61.3%	0.0%
2014	81.3%	14.6%	68.7%	0.3%	58.1%	0.0%	49.1%	0.0%
2016	80.2%	10.8%	61.9%	0.0%	47.0%	0.0%	35.3%	0.0%
2018	78.9%	7.4%	54.8%	0.0%	36.1%	0.0%	22.1%	0.0%
2020	77.4%	5.3%	47.1%	0.0%	24.3%	0.0%	8.5%	0.0%
2022	75.7%	4.0%	38.4%	0.0%	11.1%	0.0%	0.0%	0.0%
2024	73.7%	4.0%	28.2%	0.0%	0.0%	0.0%		
2026	71.4%	3.1%	16.1%	0.0%				
2028	69.1%	1.6%	2.1%	0.0%				
2030	66.9%	1.3%						
2032	65.1%	1.4%						
2034	63.7%	1.3%						
2036	62.6%	0.7%						
2038	61.6%	0.4%						
2040	60.9%	0.2%						
2042	60.2%	0.4%						
2044	59.6%	0.2%						
2046	59.1%	0.1%						
2048	58.8%	0.2%						
2050	58.4%	0.2%						
2052	58.1%	0.2%						
2054	57.7%	0.2%						
2056	57.4%	0.0%						
2058	57.1%	0.1%						
2060	56.8%	0.0%						

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth each year from today to the year in the table.



Stress Test – High Tuition and Low Investment Growth Current Program								
Tuition Growth	10%		15%		20%		25%	
Investment Growth	4%		4%		4%		4%	
	Funded Status	Probability of Stress						
2010	67.4%	11.4%	67.4%	2.4%	67.4%	0.8%	67.4%	0.1%
2012	77.2%	6.4%	70.8%	0.4%	65.1%	0.0%	60.1%	0.0%
2014	76.5%	4.2%	64.3%	0.1%	54.1%	0.0%	45.7%	0.0%
2016	72.2%	2.8%	54.9%	0.0%	41.3%	0.0%	30.8%	0.0%
2018	67.8%	1.7%	45.7%	0.0%	29.3%	0.0%	17.5%	0.0%
2020	63.1%	1.1%	36.3%	0.0%	17.4%	0.0%	4.7%	0.0%
2022	58.1%	0.7%	26.2%	0.0%	4.7%	0.0%		
2024	52.8%	0.6%	15.1%	0.0%				
2026	47.2%	0.4%	3.1%	0.0%				
2028	41.6%	0.2%						
2030	36.8%	0.1%						
2032	33.8%	0.1%						
2034	32.4%	0.1%						
2036	32.0%	0.1%						
2038	31.9%	0.0%						
2040	32.2%	0.0%						
2042	32.7%	0.0%						
2044	33.3%	0.0%						
2046	33.8%	0.0%						
2048	34.6%	0.0%						
2050	35.4%	0.0%						
2052	36.0%	0.0%						
2054	36.6%	0.0%						
2056	37.0%	0.0%						
2058	37.5%	0.0%						
2060	38.1%	0.0%						

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth and 4 percent investment returns each year from today to the year in the table.



Stress Test – High Tuition and Low Investment Growth GET 2								
Tuition Growth	10%		15%		20%		25%	
Investment Growth	4%		4%		4%		4%	
	Funded Status	Probability of Stress						
2010	67.4%	11.4%	67.4%	2.4%	67.4%	0.8%	67.4%	0.1%
2012	76.8%	6.4%	70.5%	0.4%	64.9%	0.0%	59.9%	0.0%
2014	76.3%	4.2%	64.3%	0.1%	54.2%	0.0%	45.8%	0.0%
2016	72.3%	2.8%	55.3%	0.0%	41.7%	0.0%	31.0%	0.0%
2018	68.4%	1.7%	46.4%	0.0%	29.7%	0.0%	17.4%	0.0%
2020	64.4%	1.1%	37.2%	0.0%	17.3%	0.0%	4.0%	0.0%
2022	60.0%	0.7%	26.9%	0.0%	3.8%	0.0%		
2024	55.2%	0.6%	15.2%	0.0%				
2026	50.1%	0.4%	1.7%	0.0%				
2028	44.8%	0.2%						
2030	40.0%	0.1%						
2032	36.4%	0.1%						
2034	34.3%	0.1%						
2036	33.6%	0.1%						
2038	33.3%	0.0%						
2040	33.3%	0.0%						
2042	33.7%	0.0%						
2044	34.3%	0.0%						
2046	34.8%	0.0%						
2048	35.5%	0.0%						
2050	36.0%	0.0%						
2052	36.4%	0.0%						
2054	36.6%	0.0%						
2056	36.6%	0.0%						
2058	36.8%	0.0%						
2060	36.9%	0.0%						

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth and 4 percent investment returns each year from today to the year in the table.



**Stress Test – High Tuition and Low Investment Growth; Pricing at 9.5% Tuition Growth
Current Program**

Tuition Growth	10%		15%		20%		25%	
Investment Growth	4%		4%		4%		4%	
	Funded Status	Probability of Stress						
2010	67.4%	11.4%	67.4%	2.4%	67.4%	0.8%	67.4%	0.1%
2012	69.8%	6.4%	63.9%	0.4%	58.7%	0.0%	54.2%	0.0%
2014	69.0%	4.2%	57.8%	0.1%	48.5%	0.0%	40.9%	0.0%
2016	67.7%	2.8%	51.3%	0.0%	38.7%	0.0%	29.0%	0.0%
2018	66.1%	1.7%	44.8%	0.0%	29.4%	0.0%	18.4%	0.0%
2020	64.3%	1.1%	37.9%	0.0%	20.0%	0.0%	8.2%	0.0%
2022	62.2%	0.7%	30.7%	0.0%	10.3%	0.0%	0.0%	0.0%
2024	59.9%	0.6%	23.0%	0.0%	0.3%	0.0%		
2026	57.7%	0.4%	15.1%	0.0%				
2028	55.7%	0.2%	7.3%	0.0%				
2030	54.7%	0.1%	2.4%	0.0%				
2032	55.0%	0.1%	1.9%	0.0%				
2034	56.2%	0.1%	5.0%	0.0%				
2036	57.7%	0.1%	9.6%	0.0%				
2038	59.0%	0.0%	13.9%	0.0%				
2040	60.2%	0.0%	18.2%	0.0%				
2042	61.1%	0.0%	22.0%	0.0%				
2044	61.9%	0.0%	25.3%	0.0%				
2046	62.6%	0.0%	28.0%	0.0%				
2048	63.2%	0.0%	30.2%	0.0%				
2050	63.7%	0.0%	32.1%	0.0%				
2052	64.3%	0.0%	33.6%	0.0%				
2054	64.9%	0.0%	34.7%	0.0%				
2056	65.5%	0.0%	35.6%	0.0%				
2058	66.1%	0.0%	36.2%	0.0%				
2060	66.6%	0.0%	36.7%	0.0%				

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth and 4 percent investment returns each year from today to the year in the table.



**Stress Test – High Tuition and Low Investment Growth; Pricing at 9.5% Tuition Growth
GET 2**

Tuition Growth	10%		15%		20%		25%	
Investment Growth	4%		4%		4%		4%	
	Funded Status	Probability of Stress						
2010	67.4%	11.4%	67.4%	2.4%	67.4%	0.8%	67.4%	0.1%
2012	75.7%	6.4%	69.4%	0.4%	63.9%	0.0%	59.0%	0.0%
2014	75.2%	4.2%	63.2%	0.1%	53.3%	0.0%	45.0%	0.0%
2016	74.2%	2.8%	56.8%	0.0%	43.1%	0.0%	32.3%	0.0%
2018	73.2%	1.7%	50.5%	0.0%	33.2%	0.0%	20.5%	0.0%
2020	72.1%	1.1%	44.0%	0.0%	23.4%	0.0%	8.9%	0.0%
2022	70.8%	0.7%	37.1%	0.0%	13.2%	0.0%	0.0%	0.0%
2024	69.4%	0.6%	29.8%	0.0%	2.3%	0.0%		
2026	68.1%	0.4%	22.4%	0.0%				
2028	67.0%	0.2%	15.4%	0.0%				
2030	66.2%	0.1%	10.4%	0.0%				
2032	66.2%	0.1%	8.3%	0.0%				
2034	66.5%	0.1%	9.3%	0.0%				
2036	66.9%	0.1%	11.8%	0.0%				
2038	67.4%	0.0%	15.2%	0.0%				
2040	67.8%	0.0%	18.8%	0.0%				
2042	68.1%	0.0%	22.3%	0.0%				
2044	68.4%	0.0%	25.2%	0.0%				
2046	68.6%	0.0%	27.9%	0.0%				
2048	68.7%	0.0%	30.0%	0.0%				
2050	68.8%	0.0%	31.6%	0.0%				
2052	68.9%	0.0%	33.3%	0.0%				
2054	68.9%	0.0%	34.7%	0.0%				
2056	68.9%	0.0%	35.7%	0.0%				
2058	69.0%	0.0%	36.5%	0.0%				
2060	69.0%	0.0%	37.2%	0.0%				

Assumes 15-year amortization of unfunded liability added to unit price.

Assumes closure of plan after plan goes insolvent.

Funded status shown without present value of contract receivables (normally included in funded status).

Pay-Go amount shown as nominal dollars which usually occur over a 27-year period after insolvency.

Probability of stress represents the likelihood of the cumulative stress under our long term best-estimate assumptions. For example, the chance of continued 10 percent tuition growth and 4 percent investment returns each year from today to the year in the table.



Appendix C – Assumptions We Made

We made changes to a few assumptions from the *2009 GET Solvency Study* for our update to the current program. We then also made assumption changes to price SSB 5749 (“GET 2”). Lastly, we ran deterministic stress tests on both the current program and GET 2. The sections below explain these three pieces.

Assumptions to Update Current Program

First, we assumed the GET Committee would follow their new price-setting guidelines over the 50-year projection period. The new price-setting guidelines require a 15 percent reserve when the program is less than 100 percent funded, a 5 percent reserve when the program is over 150 percent funded, and a 10 percent reserve in between.

We updated the model with actual investment returns through February 28, 2011. The investment returns from June 30, 2010 through February 28, 2011, were 18.35 percent. We altered the expectation of future investment returns in line with WSIB’s latest Capital Market Assumptions (CMAs). The new assumptions have an expected value of 6.63 percent per year. WSIB is currently reviewing their CMAs and may make further changes in April of this year. The results of this analysis would change under different CMAs.

We increased our short-term tuition increase assumption in line with our expectation that tuition increases over the next two to four years will likely be higher than 7.5 percent. In the first two years of the projection, we deterministically set the tuition growth rate at 11 percent per year. In years three and four of the projection, we set an expected tuition growth of 10 percent, normally distributed with a standard deviation of 3 percent. In years five and beyond, our long-term tuition growth assumption remains at 7.5 percent with an assumed standard deviation around that mean.

We assumed the GET Committee would price future units in line with these expectations.

We deterministically set the number of units purchased in the first year. Historically, the program has sold about 70 percent of their units in the months of March and April. As of March 1, 2011, GET had sold 871,232 units. Using these two pieces of information, the number of units sold as of March 1, 2011 through the end of the purchase period would indicate about 2,900,000 units sold. We selected 2,800,000 as a reasonable estimate of how many units might be sold in this enrollment period. In future years we increased the expected number of units sold under typical conditions (a premium level of about 17 percent) to 2,328,669 to retain consistency with historical data. We also increased the standard deviation of units sold per year to be 774,215 to reflect a greater uncertainty about how many units might be sold in the future.



In addition, we changed the mix of “cash constrained” and “investor” type purchasers from 50/50 to 70 percent and 30 percent respectively. Please see the *2009 GET Solvency Study* for a description of these two purchaser types.

Assumptions to Price GET 2

The pricing is consistent with the *2009 GET Solvency Study* and the section above unless stated otherwise below.

First, we calculated the new GET unit value based on the current weighted average of tuition at the affected colleges. Based on current tuition, and enrollment counts from the OFM, we assume the new unit value would be \$50.68. This constitutes a 41 percent drop from the current unit value. We assumed that purchasers would buy 41 percent more units up to the maximum allowable 500 units to obtain the same amount of cash outflow and tuition coverage from the program. This results in an assumption of 35.9 percent more units being purchased based on the lower unit value.

Using a history of tuition growth at the University of Washington, the regional universities, and community colleges, we set a new assumption for weighted average tuition growth. We assumed weighted average tuition will grow by 7.11 percent and will have a 4.63 percent standard deviation (decrease from 7.50 percent and 5.16 percent for the current program). We also used the ratio of 7.11 / 7.50 to lower the expected tuition growth in the first four years of the projection (10.42 percent instead of 11.00 percent in years one and two; 9.47 percent instead of 10.00 percent in years three and four). All units that were purchased before the effective date of this bill are expected to continue to grow at the expected rate (un-weighted) of the current program.

We assumed the GET Committee would price future units in line with these expectations.

We also show what the effect would be if SSB 5749 passes and purchaser behavior is adversely affected. We chose 200,000 (about 12.5 percent) and 800,000 (about 50 percent) fewer annual units as an informative range.

Lastly, we show what the impact of SSB 5749 would be if community colleges were excluded from the weighted average unit cost calculation. The unit value would be \$77.07 rather than \$50.68. We assumed a 7.5 percent increase in the expected number of units due to this decrease in value from the current program. We assumed the weighted average tuition would grow by 7.30 percent with a standard deviation of 4.76 percent. Likewise, the expected tuition growth in the first two years would be 10.71 percent; the expected tuition growth in years three and four would be 9.74 percent.



Stress Tests

We assumed the unfunded liability in each year would be amortized over a rolling 15-year period, assuming 2,000,000 units sold in each year of the 15-year amortization.

For the stress tests only, we also assumed that the program would be closed in the first year of insolvency.



Appendix D – Solvency Report Card for GET 2 Excluding Community Colleges

SSB 5749 defines the value of future GET 2 units as “equivalent to the price of tuition and fees at the time a purchaser enters into a tuition unit contract, multiplied by the average percentage increase of resident undergraduate tuition and fees at all state institutions of higher education, weighted by the number of full-time equivalent resident undergraduate students.” For purposes of this pricing, we interpret “all state institutions of higher education” to include community colleges.

Should the Legislature amend SSB 5749 to exclude community colleges, the following solvency report card would apply.

Solvency Report Card – GET 2 Excluding Community Colleges From Payout Value				
Category	Value	Score	Grade	Weight
Probability of State Contributions	0.7%	96	A	25%
Worst Case 50-Year State Contributions (millions)	\$4,711	85	B	25%
Average Funded Status	105%	90	A	20%
Probability of Funded Status Under 50%	21.2%	58	F	20%
Average Annual Change in Premium Level	0.83%	96	A	10%
Total Solvency Score		84	B	100%

For your reference, we repeat the GET 2 solvency report from the body of the letter, which includes community colleges in the payout value.

Solvency Report Card – GET 2 Including Community Colleges In Payout Value				
Category	Value	Score	Grade	Weight
Probability of State Contributions	0.4%	98	A	25%
Worst Case 50-Year State Contributions (millions)	\$3,657	88	B	25%
Average Funded Status	103%	89	B	20%
Probability of Funded Status Under 50%	21.1%	58	F	20%
Average Annual Change in Premium Level	0.87%	96	A	10%
Total Solvency Score		86	B	100%