2018 ACTUARIAL VALUATION REPORT

Guaranteed Education Tuition Program

Office of the State Actuary
"Supporting financial security for generations."

November 2018

Office of the State Actuary

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LETTER OF INTRODUCTION **1**

EXECUTIVE SUMMARY **5**

INTENDED USE 7

COMMENTS ON 2018 RESULTS 7

FUNDED STATUS OF CURRENT CONTRACTS 8

PROJECTION OF CURRENT CONTRACTS 8

KEY ASSUMPTIONS 10

CONTRACT DATA 10

BACKGROUND **11**

PLAN DESCRIPTION **15**

BEST ESTIMATE RESULTS **19**

STATUS OF CURRENT CONTRACTS 21

RECONCILIATIONS 22

CLOSED PROGRAM CASH FLOWS 24

SENSITIVITY OF BEST ESTIMATE RESULTS **25**

CLOSED PROGRAM CASH FLOWS 27

TERMINATED PROGRAM CASH FLOWS 28

ACTUARIAL CERTIFICATION LETTER **31**

APPENDICES **35**

APPENDIX A ★ ASSUMPTIONS, METHODS, AND DATA **37**

ECONOMIC ASSUMPTIONS 37

DEMOGRAPHIC ASSUMPTIONS 39

BEHAVIORAL ASSUMPTIONS 41

MISCELLANEOUS 41

METHODS 41

DATA 41

APPENDIX B ★ ASSETS **43**

APPENDIX C ★ CONTRACT DATA **45**

APPENDIX D ★ PRICE-SETTING GUIDELINES **47**

LETTER OF INTRODUCTION

Letter of Introduction
Guaranteed Education Tuition
Actuarial Valuation Report
As of June 30, 2018

November 2018

This report documents the results of an actuarial valuation of the Guaranteed Education Tuition (GET) program. The primary purposes of this valuation are to:

- Calculate the funded status of the contracts sold as of the valuation date.
- Explain what the funded status represents and how the reader should use it.
- Show how the funded status changed from the last valuation and how the funded status at this valuation date changes when we use different assumptions.

This report also provides information regarding the data, assumptions and methods used in the valuation of the GET program.

This report is organized in the following sections:

- Executive Summary.
- Background.
- Plan Description.
- Best Estimate Results.
- Sensitivity of Best Estimate Results.
- Actuarial Certification Letter.
- Appendices.

The Executive Summary provides the key results for this actuarial valuation. The Background and Plan Description sections explain how this valuation complements annual GET communications, how the Office of the State Actuary supports GET, and

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provide a general understanding of the GET program. The next two sections provide detailed actuarial asset, liability, and cash flow information over the next 25 years. The Appendices describe the key assumptions and methods, assets, participant data, and additional information used to prepare this valuation.

We encourage you to submit any questions you might have concerning this report to our mailing address or our e-mail address at state.actuary@leg.wa.gov. We also invite you to visit GET's website for further information regarding Washington's GET program.

Sincerely,

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

Graham Dyer
Senior Actuarial Analyst

EXECUTIVE SUMMARY

INTENDED USE

The purpose of this report is to:

- Provide an annual update of the financial status of the Guaranteed Education Tuition (GET) program.
- Provide a snapshot view of the present value of current contracts' obligations and assets as of the valuation date.
- Provide a best estimate projection of the program assuming no future unit sales other than those purchased through existing monthly payment contracts.
- Show how these results could vary if key assumptions are altered.

All of this information should be used together to understand the current status of the GET program.

This report is one of several key documents related to GET throughout a fiscal year. This report is not intended to replace program information supplied by GET or other analysis supplied by the Office of the State Actuary, including analysis provided for the Comprehensive Annual Financial Report. Please replace this report when a more recent report becomes available.

This report does not include the full effects of Engrossed Senate Bill 6087 (ESB 6087) and should not be used to determine the impacts of ESB 6087 or the potential future increases in units from ESB 6087. Please see the ESB 6087 bill report on the Legislature's website for further information on ESB 6087.

COMMENTS ON 2018 RESULTS

Many factors can influence how actuarial valuation results change from one measurement date to the next. Those factors include changes in the covered population; changes in program provisions, assumptions, and methods; and experience that varies from our expectations.

Significant factors for this year's valuation include the following:

- Higher than expected investment returns for the plan year ending June 30, 2018 (increased funded status); and
- Higher than expected distributions due to refunds under the program's temporary special refund rules and asset transfers in anticipation of early transfers from GET to the DreamAhead College Investment Plan under ESB 6087 (Decreased funded status).

During the 2018 Legislative Session, the Legislature passed ESB 6087. This law allows the transfer of GET units purchased before July 1, 2015 to the DreamAhead College Investment Plan at a unit payout value of $143. The law defines the special payout value as the Unit Cash Value Price (UCVP) and allows transfers at the UCVP for a specified window to be determined by the GET Committee. The GET Committee, at their April 2018 meeting, set the UCVP transfer window to begin June 15, 2018, and end September 12, 2018. The Committee also authorized an extension of the temporary special refund rules already in place to end on September 12, 2018. UCVP transfers and refunds processed within this window could materially change the funded status of the program. We expect these transfers and refunds will result in a decrease to both the program obligations and assets. However, data detailing the number of units that exited the program during the window is not available as of this report's completion date. Due to this limitation, this report includes no adjustment to program obligations or assets for UCVP transfers or refunds occurring after June 30, 2018. Lastly, the WSIB Board authorized a temporary reallocation of assets to meet expected liquidity needs for UCVP transfers (please see the Appendices for further details).

This valuation reflects unredeemed purchased or contracted units at June 30, 2018. The GET Committee, at their September 2018 meeting, adopted a new unit price of $113 for future sales starting on November 1, 2018. We will include the impact of new units purchased or contracted during the next enrollment period in next year's actuarial valuation report.

The GET Committee or Legislature may decide to close or terminate the program in the future. We include supplemental analysis in this report for those two scenarios. If either scenario occurs, the Washington State Investment Board (WSIB) may change the program's asset allocation to increase liquidity. In turn, a closure may lead to a lower assumed rate of investment return. A lower assumed rate of return would increase the present value of program obligations and lower the program's funded status. The sensitivity analysis section demonstrates how the closed and terminated program measurements change when we assume lower rates of return.

The results of the valuation **exclude the impacts of differential tuition**. If differential tuition were implemented and included in the GET unit payout value, the results of this valuation could materially change.

FUNDED STATUS OF CURRENT CONTRACTS

The following table summarizes the key measures of the program's funded status as of the current and prior year's valuation dates. The present value of future obligations represents the expected value, as of the valuation date, of all future payments from the program for current contracts only. The future payments represent both unit payout values and expenses (please see the Appendices for further details on the expenses included in this valuation). We discount future payments to the valuation date using the expected rate of investment return to determine the present value of those future payments. The present value of the fund represents both assets currently on hand and the present value of monthly contract receivables. Please see the Best Estimate Results section of this report for further information on how the funded status and fund value changed from last year's valuation.

Funded Status Summary		
(Dollars in Millions)	**2018**	**2017**
Present Value of Future Obligations	$1,710	$1,734
Present Value of Fund	$2,227	$2,303
Funded Status	130.2%	132.8%
Reserve/(Deficit)	$517	$570

The funded status helps readers evaluate the health of the GET program at a single point in time. A history of funded status measured consistently over a defined period helps readers evaluate a plan's long-term ability to accurately assess and react to experience. A plan more/less than 100 percent funded is not automatically considered over-funded/at-risk.

The reserve/(deficit) indicates the excess/shortfall of the fund assets on hand to cover the program's obligations at the valuation date. The reserve level can be interpreted similarly to the funded status.

A self-sustaining program that collects all cash inflows up front, like GET, may want to aim for a long-term reserve of approximately 15 percent (or 115 percent funded status) in order to protect against unexpected adverse outcomes over the life of the program. The program may require a reserve above 15 percent under future circumstances that vary from today's environment.

Please note the program's funded status is highly sensitive to changes in tuition policy and associated changes in assumed tuition growth. The program's funded status is also sensitive to changes to the long-term assumed rate of investment return. Small increases/decreases in the assumed rate of return can produce large increases/decreases in the funded status, while small increases/decreases in the assumed tuition growth can produce large decreases/increases in the funded status.

Further, in anticipation of UCVP transfers to the DreamAhead College Investment Plan, GET transferred $95 million from the fund just prior to the valuation date. This transfer is reflected in the fund value as of June 30, 2018, and accounts for a portion of the decrease in funded status.

As a result of this sensitivity, readers should exercise caution when interpreting and reaching conclusions based on a single, point-in-time, measurement.

Please see the Sensitivity of Best Estimate Results section and the Appendices for how these results could change under different assumptions.

PROJECTION OF CURRENT CONTRACTS

The next table shows a projection of future funded status assuming no future unit sales, aside from unit purchases already under contract. Along with the funded status, the table shows the expected assets, net cash flows, and present value of obligations (so the reader can assess the size of the program).

We advise readers to exercise caution when using, distributing, or relying on the projection. As with any projection, this projection will only remain accurate if all assumptions are realized. Furthermore, this projection represents current contracts only (no future unit sales) and assumes no future changes to current program provisions.

A large expected reserve develops under this projection because we assume the current reserve of $517 million will continue to grow with the long-term expected return of 5.65 percent each year. However, as noted earlier, if the program is permanently closed or terminated, WSIB may change the program's asset allocation. That in turn may lead to a lower assumed rate of investment return. A lower assumed rate of return would increase the present value of program obligations and lower the program's reserve and funded status.

As noted earlier, the impact of UCVP transfers and customer-requested refunds under the special and temporary refund rules may materially change the projection of the program's assets and obligations. After the closure of the transfer window on September 12, 2018, ESB 6087 directs GET to add units to remaining active

accounts for units originally purchased before July 1, 2015, at a price above $117.82. Lastly, the law directs GET to add units to all remaining active accounts who purchased units before July 1, 2015, such that the resulting funded status of the program equals 125 percent or these unit holders receive a maximum 15 percent increase in unredeemed units (measured at a date yet to be determined). The projections in this actuarial valuation reflect UCVP transfers and customer-requested refunds through June 30, 2018, only.

Please see the Sensitivity of Best Estimate Results section for how these results could change under different assumptions and how the results change if the program were terminated.

Projection of Current Contracts Only (If all Assumptions are Realized)

(Dollars in Millions); BOY = Beginning of Year

Fiscal Year	Funded Status	BOY Fund Value	BOY Obligation Value	Net Cash Flow
2018	130%	$2,227	$1,710	($15)
2019	133%	2,192	1,647	(29)
2020	137%	2,145	1,570	(46)
2021	141%	2,082	1,475	(67)
2022	147%	2,000	1,360	(91)
2023	155%	1,897	1,222	(58)
2024	164%	1,827	1,115	(67)
2025	175%	1,751	1,000	(73)
2026	190%	1,671	878	(75)
2027	211%	1,589	753	(74)
2028	240%	1,511	628	(69)
2029	284%	1,438	507	(57)
2030	348%	1,378	396	(41)
2031	447%	1,335	299	(20)
2032	601%	1,313	218	0
2033	841%	1,313	156	20
2034	*	1,333	111	35
2035	*	1,368	76	47
2036	*	1,415	51	59
2037	*	1,474	32	68
2038	*	1,542	19	77
2039	*	1,619	10	84
2040	*	1,703	4	92
2041	*	1,796	0	101
2042	*	1,897	0	107
2043	*	$2,004	$0	$113

**Funded Status exceeds 1,000% due to very small obligation value.*

KEY ASSUMPTIONS

The results of this valuation are based on a number of assumptions that include both economic and demographic factors. We summarize the key assumptions in the next table. Please see the Assumptions, Methods, and Data section in the Appendices for a detailed listing of the assumptions used in this valuation. Neither the assumed annual rate of investment return nor the assumed tuition growth changed from our last valuation.

Key Assumptions	
Annual Investment Return	5.65%
Annual Tuition Growth	
2018-19	2.0%
2019-20	6.5%
2020-21	6.5%
2021-22	6.5%
2022-23	6.5%
2023-24	5.0%
2024-25	5.0%
2025-26	5.0%
2026-27	5.0%
2027-28	5.0%
2028-29	5.0%
2029-30+	5.0%

CONTRACT DATA

The table below summarizes the current contract and unit data used in this valuation for the plan year ending June 30, 2018, as well as for the prior year. Please see the Best Estimate Results section for a table reconciling outstanding GET units from last year to this year. Please also see the Contract Data section in the Appendices for additional information on when units were purchased and their expected use years.

Contract Summary		
	2018	2017
Number of Current Contracts	96,611	99,108
Number of Units Outstanding	16,310,453	17,424,203

BACKGROUND

The Washington State Legislature created the Guaranteed Education Tuition (GET) program in 1997. The program sold units annually from September 1, 1998, through June 30, 2015, when the GET Committee suspended new unit sales. The program reopened (and sold new units) starting on November 1, 2017.

RCW 28B.95 outlines the purpose of the GET program along with general guidelines regarding how it is administered. The statute establishes the five-member Committee on Advanced Tuition Payment and College Savings (GET Committee). The GET Committee meets regularly to discuss the goals and status of the program, make administrative decisions, and set the unit price for the following enrollment period.

GET staff supports the functions of the program and the GET Committee by administering the program and staffing GET Committee meetings. GET staff also prepare studies and reports that are directed to the GET Committee by the Legislature. Communications from GET staff can be found on the GET website.

Statute also defines the eight-member Legislative Advisory Committee (LAC). The LAC provides advice to the GET Committee and Office of the State Actuary (OSA) regarding the administration of the program.

OSA assists the GET Committee and the Legislature by providing actuarial services and consulting. OSA's three primary services for GET include:

- Prepare an annual actuarial valuation of GET (this document) for the GET Committee.
- Prepare unit price-setting analysis for the GET Committee.
- Consult, price, and communicate the effects of potential changes to the GET program for the GET Committee or the Legislature.

This valuation should not be used in isolation to understand the ongoing health of the GET program. Rather, this document should be used together with the annual report from GET staff, OSA's price-setting analysis (when performed), and any other studies or reports created by GET staff, OSA, or LAC.

PLAN DESCRIPTION

LOVE WELL ★ LAUGH OFTEN ★ LOVE MUCH

A combination of RCW 28B.95 (determined by the Legislature) and the Guaranteed Education Tuition Program (GET) participant agreement (determined by the GET Committee) make up the terms of the GET program. Statute provides general guidelines and certain rules for the GET Committee, whereas the GET contract states all specific details for the purchaser.

The main plan provisions are outlined below so the reader can get a sense for what cash flows occur, what parties are involved, and what drives the results of the actuarial valuation. For a complete description of the plan provisions we direct you to GET's website, which includes both summarized plan provisions and the full GET participant agreement. If the summary below conflicts with relevant statute or the GET participant agreement, the relevant statute and participant agreement supersede this summary.

The graphic below illustrates the standard yearly process when new unit sales are allowed and under normal refund rules.

Unit Price is Set

- GET Committee sets the price annually prior to each enrollment period.
- Based on adopted price-setting guidelines.

Units are Purchased

- Maximum of 600 units.
- Can be purchased either through a lump sum payment or a monthly contract (with finance charges).

Money is Invested

- Investment returns on the proceeds from unit sales are expected to pay a portion of the future unit value and lowers the price of the unit today.
- Invested by the Washington State Investment Board.

Units are Redeemed

- Unit Value (specific dollar amount) equals 1 percent of annual resident undergraduate tuition and state mandated fees at most expensive public Washington university at time of unit use.
- Maximum of 150 units per year, plus any unused units from a prior year.
- Used at any eligible in-state or out-of-state higher education institution based on Unit Value, or
- Refunded based on Unit Value (less any applicable program fees) or transferred to another eligible beneficiary.

BEST ESTIMATE RESULTS

This section provides details of our best estimate of the present value of obligations, assets, cash flow, and funded status information for the Guaranteed Education Tuition Program (GET) for outstanding units at June 30, 2018. The first subsection shows the assets currently set aside for the contracts sold as of the valuation date, along with a history of the funded status. Also provided is a "gain/loss" table that illustrates how the funded status changed since last year, and a short series of tables that reconcile fund values and outstanding contracts from last year to this year. The last subsection illustrates how the program is expected to fare beyond the valuation date, assuming no future unit sales other than those purchased through existing monthly payment contracts.

Please see the Executive Summary section for a description of this information and how it can be interpreted.

STATUS OF CURRENT CONTRACTS

The next two tables display the program's current funded status, along with a funded status history.

Funded Status	
(Dollars in Millions)	
Obligations	
a) Present Value of Unit Redemptions	$1,696
b) Present Value of Administrative Expenses	$15
c) Present Value of Obligations (a+b)	$1,710
Fund Value	
d) Assets	$2,095
e) Present Value of Monthly Contract Receivables	$132
f) Present Value of Fund (d+e)	$2,227
Calculation of Funded Status	
g) Present Value of Fund (f)	$2,227
h) Present Value of Obligations (c)	$1,710
i) Ratio of Fund Value to Obligations (g/h)	130.2%
j) Reserve/(Deficit) (g-h)	$517

Funded Status History	
Fiscal Year	Funded Status
2018	130.2%
2017	132.8%
2016	135.6%
2015	140.1%
2014	105.8%
2013	94.1%
2012	78.5%
2011	79.1%
2010	86.2%
2009	84.2%
2008	109.5%
2007	117.4%
2006	108.8%
2005	108.1%
2004	104.5%
2003	98.4%
2002	89.6%
2001	104.9%
2000	113.4%
1999	110.1%

RECONCILIATIONS

The following table demonstrates actuarial gains and losses, expressed as funded status changes. We use gain/loss analysis to compare actual changes to assumed changes in the assets and obligations. We also use this analysis to determine:

- The accuracy of our valuation model and annual processing;
- Why funded status changed; and,
- The reasonableness of the actuarial assumptions.

Actuarial gains will increase funded status; actuarial losses will decrease funded status. Under a reasonable set of actuarial assumptions, actuarial gains and losses will offset over long-term experience periods.

Gain/(Loss) Analysis Change in Funded Status by Source	
2017 Funded Status	**132.8%**
Changes in table Funded Status	
Expected Change in Funded Status	**3.2%**
Program Obligations	
Tuition Payments or Refunds*	3.3%
New Units Purchased	(5.4%)
Other	(0.7%)
Total Program Obligations Gains/Losses	**(2.7%)**
Program Assets	
Contributions	
Existing Contracts	(0.1%)
New Unit Sales	3.7%
Distributions	(8.5%)
Contract Receivables	
Existing Contracts	(0.0%)
New Unit Sales	1.7%
Investment Earnings	1.0%
Other	(0.7%)
Total Program Assets Gains/Losses	**(2.9%)**
Additional Changes	
Tuition Growth Assumption Change*	(0.1%)
Investment Return Assumption Change	N/A
Method Change	N/A
Update of Shutdown Expenses	0.0%
Total Additional Change Gains/Losses	**0.0%**
Other Gains/Losses	**(0.2%)**
Total Change	**(2.6%)**
2018 Funded Status	**130.2%**

Note: Totals may not agree due to rounding.
**Includes the annual update to the unit payout value.*

The next three tables show reconciliations from last year to this year, for Market Value of Assets, Present Value (PV) of Monthly Contracts, and Outstanding Units.

Change in Market Value of Assets	
(Dollars in Millions)	
2017 Market Value of Assets	**$2,168**
Changes in Net Asset Value	
Interest and Other Investment Income	33
Capital Gains and Losses	248
Unrealized Gains and Losses	(144)
Expenses	(2)
Contributions	89
Distributions*	(296)
Total Changes in Net Asset Value	**(73)**
2018 Market Value of Assets	**$2,095**

**In anticipation of UCVP transfers to the DreamAhead College Investment Plan, GET transferred $95 million from the fund prior to the valuation date.*

Change in PV of Monthly Contract Receivables	
(Dollars in Millions)	
PV of Monthly Contracts at June 30, 2017	**$136**
Changes in PV Monthly Contracts	
Assumption Changes or Program Changes	0
Actual Payments Received in 2018	(27)
Interest Adjustment	7
Interest on Advanced Payment	0
Account Downgrades	(1)
Account Conversions*	(12)
PV of Monthly Contracts for New Units in 2018	29
Other**	1
Total Changes in PV Monthly Contracts	**(3)**
PV of Monthly Contracts at June 30, 2018	**$132**

**Conversion of Custom Monthly accounts to Lump-Sum accounts. Includes voluntary refunds.*

***Includes unexplained changes.*

Change in Number of Outstanding Units	
Number of Outstanding Units at June 30, 2017	**17,424,203**
New Units Purchased	770,665
Units Redeemed	(1,195,221)
Units Refunded[1]	(420,377)
Units Defaulted	(4,346)
Units Downgraded[2]	(5,200)
Units Converted[3]	(7,243)
Units Rolled Over to Other 529 Plans[4]	(194,396)
Units Rolled Over to DreamAhead Prior to July 1, 2018	(44,857)
Difference Between Actual and Estimated Units from Rebase	(13,961)
Other	1,186
Number of Outstanding Units at June 30, 2018[5]	**16,310,453**

[1] Includes Custom Monthly contract conversions prior to refund and rebase adjustments for refunds.

[2] Customer-requested account changes.

[3] Excludes Custom Monthly contract conversions prior to refund.

[4] Rollovers to other states' 529 plans.

[5] GET reports two fewer outstanding units. The discrepancy is expected to be resolved in a future valuation.

CLOSED PROGRAM CASH FLOWS

The following table shows how the program is expected to fare beyond the valuation date, assuming no future unit sales other than those purchased through existing monthly payment contracts. Under a closed program scenario, all existing customers with unredeemed units can redeem those units under current program terms, but the program would sell no additional units.

Projection of Current Contracts Only (If all Assumptions are Realized)											
(Dollars in Millions); BOY = Beginning of Year							Cash Inflows			Cash Outflows	
Fiscal Year	Funded Status	Unit Value[1]	Number of Units Used	BOY Fund Value[2]	BOY Obligation Value	Net Cash Flow	Monthly Contracts	Investment Return	State Contributions	Unit Use	Expense
2018	130%	$106	1,448,498	$2,227	$1,710	($15)	$27	$115	$0	($154)	($3)
2019	133%	113	1,453,095	2,192	1,647	(29)	24	113	0	(164)	(3)
2020	137%	120	1,469,443	2,145	1,570	(46)	21	111	0	(177)	(2)
2021	141%	128	1,500,723	2,082	1,475	(67)	18	108	0	(192)	(2)
2022	147%	136	1,534,600	2,000	1,360	(91)	16	104	0	(209)	(1)
2023	155%	143	1,187,140	1,897	1,222	(58)	13	100	0	(170)	(1)
2024	164%	150	1,149,112	1,827	1,115	(67)	11	96	0	(173)	(2)
2025	175%	158	1,097,829	1,751	1,000	(73)	9	93	0	(173)	(2)
2026	190%	166	1,019,685	1,671	878	(75)	7	88	0	(169)	(2)
2027	211%	174	932,705	1,589	753	(74)	6	84	0	(162)	(2)
2028	240%	183	835,119	1,511	628	(69)	4	80	0	(153)	(1)
2029	284%	192	706,661	1,438	507	(57)	3	77	0	(136)	(1)
2030	348%	201	574,501	1,378	396	(41)	2	74	0	(116)	(1)
2031	447%	212	440,123	1,335	299	(20)	2	73	0	(93)	(2)
2032	601%	222	320,024	1,313	218	0	1	72	0	(71)	(2)
2033	841%	233	219,394	1,313	156	20	1	73	0	(51)	(2)
2034	*	245	153,795	1,333	111	35	0	74	0	(38)	(2)
2035	*	257	106,855	1,368	76	47	0	76	0	(27)	(2)
2036	*	270	69,415	1,415	51	59	0	79	0	(19)	(2)
2037	*	284	43,986	1,474	32	68	0	83	0	(12)	(2)
2038	*	298	27,147	1,542	19	77	0	87	0	(8)	(2)
2039	*	313	15,261	1,619	10	84	0	91	0	(5)	(2)
2040	*	328	5,341	1,703	4	92	0	96	0	(2)	(2)
2041	*	345	0	1,796	0	101	0	101	0	0	0
2042	*	362	0	1,897	0	107	0	107	0	0	0
2043	*	$380	0	$2,004	$0	$113	$0	$113	$0	$0	$0

[1] *Shown in dollars (not in millions).*

[2] *Fund Value includes present value of monthly contract receivables. Fund Value is used for Funded Status measurement since liabilities include monthly contract units.*

**Funded Status exceeds 1,000% due to very small obligation value.*

SENSITIVITY OF BEST ESTIMATE RESULTS

The best estimate results are sensitive to the key assumptions used in the valuation. In this section, we calculated the results after varying the rate of investment return (as well as the discount rate) and tuition growth to illustrate the sensitivity of the results to these assumptions.

CLOSED PROGRAM CASH FLOWS

The following table shows the best estimate results under a closed program. A closed program is based on current contracts only. We assume no new contracts enroll in the program in the future. This scenario is consistent with our best-estimate results shown elsewhere in the report.

Sensitivity of Results to Key Assumptions

	Closed Program*						
(Dollars in Millions)	+1% Tuition	Best Estimate	-1% Tuition	-2% Discount Rate	-1% Discount Rate	Best Estimate	+1% Discount Rate
Present Value of Fund	$2,227	$2,227	$2,227	$2,237	$2,232	$2,227	$2,222
Present Value of Obligations	$1,807	$1,710	$1,620	$1,936	$1,818	$1,710	$1,613
Reserve/(Deficit)	$420	$517	$607	$301	$415	$517	$610
Funded Status (as of June 30)							
2018	123%	130%	137%	116%	123%	130%	138%
2019	125%	133%	141%	117%	125%	133%	142%
2020	128%	137%	146%	118%	127%	137%	146%
2021	131%	141%	152%	120%	131%	141%	152%
2022	135%	147%	160%	123%	135%	147%	160%
2023	141%	155%	171%	127%	140%	155%	171%
2024	147%	164%	182%	130%	146%	164%	183%
2025	155%	175%	197%	135%	154%	175%	198%
2026	166%	190%	218%	142%	165%	190%	219%
2027	181%	211%	246%	150%	179%	211%	247%
2028	201%	240%	286%	163%	199%	240%	288%
2029	232%	284%	344%	181%	228%	284%	348%
2030	277%	348%	432%	207%	272%	348%	437%
2031	345%	447%	567%	247%	338%	447%	575%
2032	452%	601%	779%	309%	442%	601%	793%
2033	618%	841%	**	404%	601%	841%	**
2034	870%	**	**	546%	841%	**	**
2035	**	**	**	771%	**	**	**
2036	**	**	**	**	**	**	**
2037	**	**	**	**	**	**	**

**Based on current contracts only, no future unit sales.*

***Funded Status exceeds 1,000% due to very small obligation value.*

TERMINATED PROGRAM CASH FLOWS

We show the termination liability under RCW 28B95.090 and the corresponding expected cash flows if the Guaranteed Education Tuition Program (GET) were to be terminated as of the valuation date. Under a termination scenario, all outstanding units outside four years of unit use would be immediately refunded at the current unit value. All participants within four years of unit use could remain in the program and redeem units over the following ten years.

If program termination were to occur, the present value of obligations as of the valuation date would be $1.714 billion and the fund value would be $2.112 billion, which would result in a reserve of $398 million and a funded status of 123 percent. This represents the funded status if the program were terminated at the valuation date and before the immediate payout occurs. The increase in liability (compared to Closed Program projection) is due to paying out a portion of the units sooner than expected, resulting in lost assumed investment earnings. The decrease in fund value (compared to Closed Program projection) is due to a portion of the outstanding monthly contracts being cancelled, resulting in lower than expected contract receivables. The following table shows these results.

Projection of Program Termination (If All Assumptions are Realized)

(Dollars in Millions); BOY = Beginning of Year

							Cash Inflows			Cash Outflows	
Fiscal Year	Funded Status	Unit Value[1]	Number of Units Used	BOY Fund Value[2]	BOY Obligation Value	Net Cash Flow	Monthly Contracts	Investment Return	State Contributions	Unit Use	Expense
2018	123%	$106	7,269,224	$2,112	$1,714	($669)	$8	$97	$0	($771)	($3)
2019	141%	113	1,453,095	1,436	1,016	(85)	6	76	0	(164)	(3)
2020	149%	120	1,469,443	1,346	902	(105)	3	71	0	(177)	(2)
2021	161%	128	1,500,723	1,238	769	(128)	1	64	0	(192)	(2)
2022	181%	136	1,534,600	1,108	614	(154)	0	57	0	(209)	(1)
2023	221%	143	1,006,797	954	432	(96)	0	50	0	(144)	(1)
2024	280%	150	777,320	858	306	(73)	0	45	0	(117)	(2)
2025	389%	158	545,696	785	202	(46)	0	42	0	(86)	(2)
2026	601%	166	753,556	739	123	(88)	0	38	0	(125)	(2)
2027	*	$174	0	$651	$0	$37	$0	$37	$0	$0	$0

[1] Shown in dollars (not in millions).

[2] Fund Value includes present value of monthly contract receivables. Fund Value is used for Funded Status measurement since liabilities include monthly contract units.

**Funded Status exceeds 1,000% due to very small obligation value.*

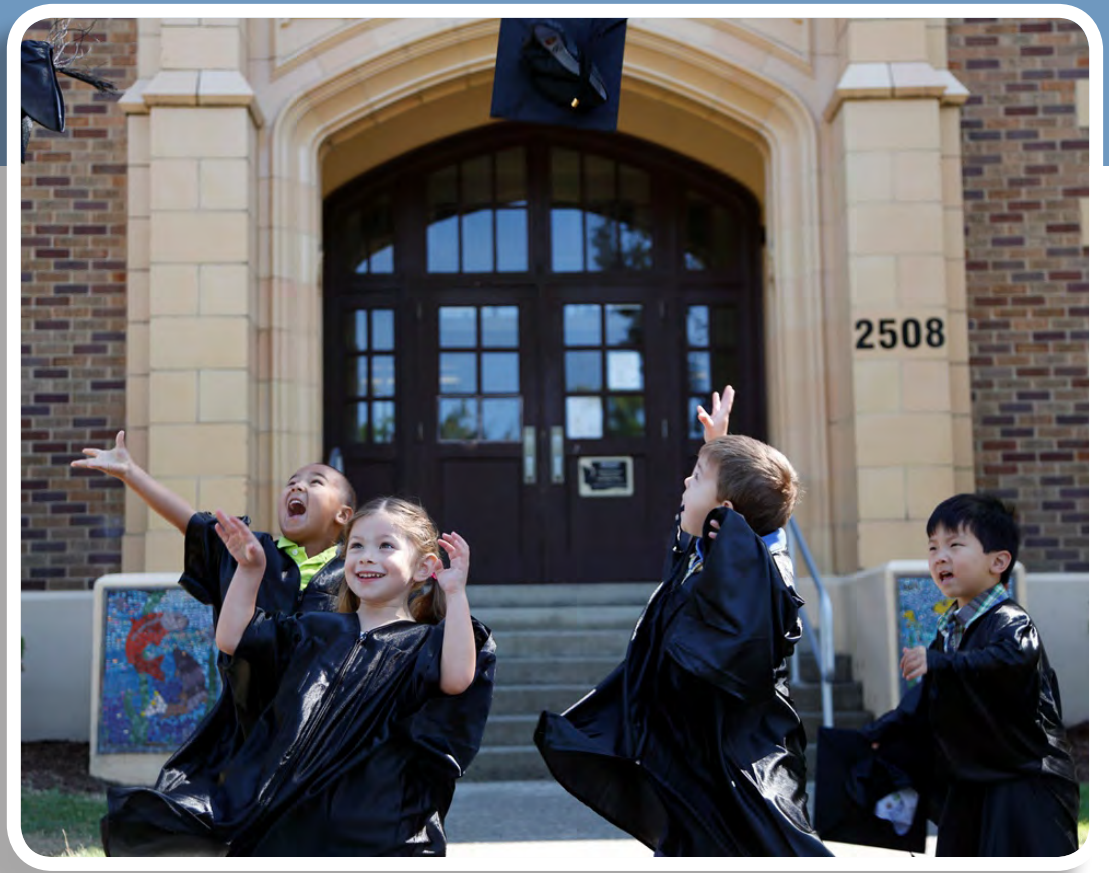
We also show how our best estimate results under program termination change when assuming lower discount rates. If the program were terminated, the Washington State Investment Board may change the program's asset allocation. That in turn may lead to a lower assumed rate of investment return.

Sensitivity of Results to Key Assumptions			
	Terminated Program*		
(Dollars in Millions)	Best Estimate	-1% Discount Rate	-2% Discount Rate
Present Value of Fund	$2,112	$2,112	$2,112
Present Value of Obligations	$1,714	$1,758	$1,805
Reserve / (Deficit)	$398	$354	$307
Funded Status (as of June 30)			
2018	123%	120%	117%
2019	141%	135%	129%
2020	149%	142%	135%
2021	161%	151%	142%
2022	181%	168%	156%
2023	221%	201%	182%
2024	280%	249%	221%
2025	389%	338%	291%
2026	601%	511%	429%
2027	**	**	**

**Program is terminated; all contracts with expected use year beyond four years immediately refunded.*

***Funded Status exceeds 1,000% due to very small obligation value.*

ACTUARIAL CERTIFICATION LETTER



Actuarial Certification Letter
Guaranteed Education Tuition
Actuarial Valuation Report
As of June 30, 2018

November 2018

This report documents the results of an actuarial valuation for the Washington Guaranteed Education Tuition (GET) Program defined under Chapter 28B.95 of the Revised Code of Washington. The primary purpose of this report is to update the annual financial status of the program through the calculation of the funded status for current contracts, in combination with the projection of the expected funded status in future years. This report also provides information on the sensitivity of the valuation results to key assumptions and developments in the program since the last valuation. This report should not be used for other purposes. Please replace this report with a more recent report when available.

The results summarized in this report involve calculations that require assumptions about future economic and demographic events. With the exception of recent changes to the investment return and tuition growth assumptions, we developed the assumptions used in this valuation during the *2015 GET Experience Study*. Copies of the *2015 GET Experience Study* are available upon request. We provide supporting analysis for the investment return and tuition growth assumptions in the Appendices of this report.

Standards of practice that specifically apply to the measurement of obligations under prepaid tuition programs have not been defined within the actuarial profession. We used the standards of practice for pension systems where possible to guide the actuarial valuation of GET. In our opinion, the assumptions, methods, and calculations used in the valuation 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 publication. The use of another set of assumptions and methods, however, could also be reasonable and could produce materially different results. Actual results may vary from our expectations.

The results of the valuation **exclude the potential impacts of differential tuition**. If differential tuition were implemented and included in the GET unit payout value, the results of this valuation could materially change. This analysis will need to be updated in the future if changes are made to the GET program or the Legislature modifies current tuition policy.

GET Program staff provided the participant and historical data to us. We checked the data for reasonableness as appropriate based on the purpose of this valuation. The Washington State Investment Board provided financial and asset information. We did

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not audit the data and 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 valuation.

No members of the GET Committee or their respective staff attempted to bias our work product. We are not aware of any matters that impacted the independence and objectivity of our work.

We intend this valuation to be used by the GET Committee during the 2019 Fiscal Year only. We advise readers of this valuation 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 valuation as a whole. Distribution of, or reliance on, only parts of this valuation could result in its misuse and may mislead others.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this report is intended to be complete, we are available to offer extra advice and explanations as needed.

Sincerely,

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

Lisa Won, ASA, FCA, MAAA
Deputy State Actuary

APPENDICES

APPENDIX A ★ ASSUMPTIONS, METHODS, AND DATA

The assumptions used in this report can be divided into three broad categories: economic, demographic, and behavioral. We discuss the assumptions used in this valuation throughout the next three subsections. However, for more detailed and supporting information on these assumptions, please see the *2015 GET Experience Study letter*. This letter is available upon request.

ECONOMIC ASSUMPTIONS

The two key economic assumptions are expected investment returns and expected tuition growth. The next table shows what we have assumed for this valuation.

Key Economic Assumptions	
Investment Returns	5.65% per year
Tuition Growth *(Excludes Differential Tuition)*	
2018-19	2.0%
2019-20	6.5%
2020-21	6.5%
2021-22	6.5%
2022-23	6.5%
2023-24	5.0%
2024-25	5.0%
2025-26	5.0%
2026-27	5.0%
2027-28	5.0%
2028-29	5.0%
2029-30+	5.0%

Expected investment returns are based on the Washington State Investment Board's (WSIB) most recent Capital Market Assumptions (CMAs) and expected asset allocation over a 15-year period. We relied on the CMAs provided by WSIB as accurate and have reviewed them for reasonability. We've implicitly assumed the current 60 percent global equity/40 percent fixed income portfolio will remain unchanged throughout the projection period. The expected investment returns, net of expenses, are used as the discount rate for expected program payments, expenses, and receivables as well as the investment returns in our closed group projections. For additional information on the program's assets and our return assumption, see Appendix B.

The tables below display the development of the tuition growth assumptions we used to prepare the valuation results. We updated our tuition growth model with the *2015 GET Experience Study*. We use the tuition growth model, information from the most recently enacted state budget, and our professional judgment to set tuition growth rates. The tuition growth model has three main structural components.

1. **Long-Term Inflationary Growth —** Represents the increase in total dollars spent on instruction. Over the last twenty years, this has increased by about 4.5 percent per year. We assume it will grow by 5.0 percent in the future. In Step 1 of our model, we estimate the total dollars required for the Cost of Instruction for undergraduate programs at the University of Washington. Consistent with the results of our recent experience study, we then increase that amount by an assumed long-term inflationary growth factor of 5 percent per year.

2. **State Funding —** Represents the increase or decrease in the percent of total dollars assumed to come from the state versus tuition. Historically, this percentage has decreased from approximately 80 percent (in 1990) to 36 percent (in 2017). This decrease has put upward pressure on tuition since tuition increased to replace lost state funding. We assume state funding will continue to decline to about 28 percent after the next two biennia and subsequently level out. As a result, we project that tuition will increase above long-term inflationary levels during the period when state funding is assumed to decrease. In Step 2, we assume every lost dollar of state support is replaced by an increased dollar from tuition. We use the resulting growth rates as the basis for Step 3.

3. **Scaling Factor —** Represents an adjustment to the increase or decrease in assumed tuition in response to a corresponding decrease or increase in state funding. For every dollar decrease (increase) in state funding, we scale the assumed tuition increases (decreases) by a fraction of that dollar, because past experience indicates that not every dollar of state funding is replaced by an increased dollar of tuition growth. Our scaling factor

assumption is 75 percent. In Step 3 of the model, we adjust the tuition growth rates after state funding by our scaling factor assumption, but not below our long-term assumption of 5 percent. Lastly, we set the first two years of tuition growth rates consistent with the recently enacted state budget for higher education and smooth the growth rates for years thereafter.

Chapter 36, Laws of 2015, 3rd Special Legislative Session, also established a policy to limit resident, undergraduate tuition growth rates to no more than the annual growth rate in the median state wage. If future Legislatures continue this policy, we would expect future tuition growth rates closer to 3-4 percent per year. However, the current Legislature cannot obligate a future Legislature. The sustainability of the current higher education budget is not certain, and past history consistently demonstrates that higher education tuition policy changes typically remain for short-term periods. Because of historical experience and legislative past practice, we have assumed tuition growth rates after the next year that we believe are more reflective of long-term practices and consistent with our expectations for the future.

Tuition Growth Assumption Structure

(Dollars in Thousands)		Step 1 – Inflation	Step 2 – State Funding			
School Year	Total Dollars	Inflationary Growth	Assumed State %	State Dollars	Tuition Dollars	Tuition Growth After State Funding
2017-18	$975,184	3.0%	36.1%	$351,726	$623,458	1.5%
2018-19	1,023,943	5.0%	37.5%	383,860	640,084	2.7%
2019-20	1,075,140	5.0%	35.2%	378,893	696,247	8.8%
2020-21	1,128,897	5.0%	33.0%	372,471	756,427	8.6%
2021-22	1,185,342	5.0%	30.7%	364,458	820,884	8.5%
2022-23	1,244,609	5.0%	28.5%	354,714	889,896	8.4%
2023-24	1,306,840	5.0%	28.5%	372,449	934,390	5.0%
2024-25	1,372,182	5.0%	28.5%	391,072	981,110	5.0%
2025-26+	1,440,791	5.0%	28.5%	410,625	1,030,166	5.0%

Historical data provided by the University of Washington.

Note: State and tuition dollars in a given year are used to develop tuition increase assumptions for the following year.

Tuition Growth Assumption Structure

Step 3 – Set Tuition Growth Assumption

School Year	Tuition Growth After State Funding	Apply 75% Scaling Factor*	Tuition Growth in 2018-19	Tuition Growth Assumption
2018-19	1.5%	5.0%	2.0%	2.0%
2019-20	2.7%	5.0%		6.5%
2020-21	8.8%	6.6%		6.5%
2021-22	8.6%	6.5%		6.5%
2022-23	8.5%	6.4%		6.5%
2023-24	8.4%	6.3%		5.0%
2024-25	5.0%	5.0%		5.0%
2025-26	5.0%	5.0%		5.0%
2026-27+	5.0%	5.0%		5.0%

**Set value equal to the greater of (a) 75% of tuition growth after state funding or (b) long-term growth assumption of 5%.*

The program's funded status is highly sensitive to short-term changes in tuition growth. For example, under an alternate tuition scenario (as shown in the following table), we assume the recently enacted tuition policy changes hold indefinitely. Under that scenario, the funded status, measured at June 30, 2018, would rise from 130 percent to 153 percent and the reserve would increase from $517 million to $768 million.

Tuition Growth Assumption - Alternate Growth Scenario	
School Year	Annual Tuition Growth
2019-20	2.5%
2020-21	2.6%
2021-22	2.7%
2022-23	2.8%
2023-24	2.9%
2024-25	3.0%
2025-26	3.1%
2026-27	3.2%
2027-28	3.3%
2028-29	3.4%
2029-30+	3.5%

The tuition growth assumption does not consider the potential impacts of differential tuition. The impact from differential tuition could vary based on how it interacts with the current contracts. If the payout value is tied to the highest rate of differential tuition, the tuition growth assumption would likely increase. However, if the payout value were tied to the lowest rate of differential tuition, the tuition growth assumption could actually decrease, as base tuition may not need to increase as fast with higher differential tuition making up the difference.

We assumed non-investment program expenses would grow at a rate of 3.50 percent per year. Consistent with the recent experience study and input from Guaranteed Education Tuition (GET) staff, starting with the *2016 Actuarial Valuation Report*, we removed the distribution expense and monthly payment plan expense used in prior actuarial valuations.

Starting with the *2017 Actuarial Valuation Report*, we replaced the maintenance expense assumption developed by the prior actuary. We now base the present value of future administrative expenses on the estimated ten-year shutdown costs provided by GET staff. We outline the development of this contingent obligation in the following table.

Development of Expenses		
Fiscal Year	Shutdown Expenses	PV of Expenses
2018	$2,922,690	$2,843,466
2019	2,535,281	2,334,650
2020	2,052,681	1,789,154
2021	1,726,208	1,424,131
2022	1,447,450	1,130,292
2023	1,490,873	1,101,941
2024	1,535,599	1,074,301
2025	1,581,667	1,047,355
2026	1,629,117	1,021,084
2027	$1,542,597	$915,150
PV of Expenses		$14,681,524

DEMOGRAPHIC ASSUMPTIONS

For the current valuation, we measure obligations and assets under a closed program and assume no new entrants (future purchasers). However, to set the unit price for the new enrollments, we use the new entrant profile to estimate the present value cost of future unit payout associated with the sale of a single unit.

We based the new entrant cohort on an average of the previous three years' new sales data provided by GET staff, in this case 2012 through 2014. We assumed each future cohort would have this same makeup.

The following table shows the percent of the population in each of the 38 unit duration and purchase type combinations. It also shows the number of units each combination purchases and the length of the monthly payment plan for those who select that payment option. For example, 1.9 percent of the people are assumed to purchase 80 lump sum units that are kept for six years before being used.

To illustrate how we use the table, for every one hundred purchasers, approximately:

- Sixty-nine select the lump-sum payment option and each buys, on average, 74 units.
- Thirty-one select the monthly payment plan option and each buys, on average, 115 units, and pay for these units over an average of 142 months.

Future Purchaser Cohort Assumption					
Length in Program (Years)	% Lump Sum	Lump Sum Units Purchased	% Monthly Payment Plan	Monthly Payment Plan Units Purchased	Length of Monthly Payment Plan (Months)
2	0.2%	94	0.0%	0	0
3	1.6%	78	0.2%	76	25
4	1.0%	77	0.4%	79	37
5	1.5%	82	0.7%	78	48
6	1.9%	80	0.9%	101	59
7	2.2%	89	1.2%	93	69
8	2.7%	99	1.3%	106	80
9	2.9%	93	1.4%	113	92
10	3.1%	84	1.5%	110	102
11	3.0%	97	1.7%	108	114
12	3.3%	87	1.8%	119	125
13	3.6%	89	1.7%	120	132
14	5.0%	79	2.5%	114	144
15	4.8%	62	2.2%	111	156
16	5.5%	63	2.6%	115	163
17	6.5%	56	2.7%	121	175
18	12.0%	59	4.2%	123	190
19	8.3%	76	3.9%	133	199
20	0.0%	7	0.0%	133	112
Total	**69.1%**	**74**	**30.7%**	**115**	**142**

BEHAVIORAL ASSUMPTIONS

We've made the following assumptions for GET contract holders. As a result of the last experience study, we removed the **Rate of Monthly Payment Default** and **Rate of Refund** from our model. We found those assumptions unnecessary (and not material) for the purposes of this measurement. However, those assumptions could be necessary for another measurement. Please see the *2015 GET Experience Study* letter for further details.

- Rate of Redemption — The following shows what percent of a contract holder's total units we expect will be used upon reaching college (or their "use year").

Redemption	
	Rate
All Years	20%

In past valuations, we projected future unit sales to model new unit purchases. For this valuation, we assumed no future purchasers will enter the program. The following projected unit sales description should be used for informational purposes only.

During the experience study we updated our **Projected Unit Sales** model. This model projects unit sales based on an assumed number of units sold corresponding to an average premium, where premium is defined as the ratio of the unit price to the unit payout value both measured at the same projected date. We adjusted expected future units based on the expected future premium. An increase/decrease in premium would result in a decrease/increase in expected unit sales. For more details, please see the experience study.

In past valuations, we assumed the GET Committee would continue to follow their past price-setting guidelines throughout the projection period. Please see Appendix D for details on the price-setting guidelines in effect during the current enrollment period.

We assumed the GET Committee would price future units in line with the expected investment returns and tuition growth discussed in the Economic Assumptions subsection. We assumed that neither the Legislature nor the GET Committee will make changes to the program over the projection period.

MISCELLANEOUS

For purposes of the valuation, we assume mid-valuation year timing on payments in and out of the fund.

METHODS

We valued the current contract and asset values in GET by estimating the future tuition payments (cash outflow), administrative expenses (cash outflow), and monthly contract payments (cash inflow). The estimation of future cash flows required assumptions about:

- When the contract holder will redeem their units.
- What tuition will be in future years.
- What administrative expenses will be over time.

We discounted these cash flows to today's value in order to calculate the plan's funded status at the valuation date. Discounting the cash flows to today's value requires an assumption regarding how the rate at which invested money will grow over time. In this case, $1 today is worth $1.0565 next year due to investment earnings. Discounting moves the opposite way and states that $1.0565 a year from now will be worth $1 today. Discounting all of the cash flows to one common year allows for an apples-to-apples comparison of all cash flows.

DATA

We used the contract data file provided by GET staff. We relied on this data as accurate and complete; we value each entry in the file. We did not perform an audit of this data, but believe it is reasonable for the purposes of our work. We used data entries such as:

- Program Year — The contract holder's entry year into the program.
- Use Year — When the contract holder expects to start using units for tuition (or other qualified expenses).
- Payment Amount — The monthly amount the contract holder owes on their payment plan.

- Payments Due — The number of monthly payments left on contract holder's monthly payment plan.
- Units Outstanding — The number of units the contract holder currently owns and units still being paid for under a monthly payment plan.

To set our tuition growth assumption we studied the historical tuition data in the following table. We also examined average tuition growth over different periods (see the bottom of the table).

Year	Tuition Growth	Year	Tuition Growth
1982-83	11.0%	2001-02	7.1%
1983-84	11.2%	2002-03	16.0%
1984-85	0.0%	2003-04	7.0%
1985-86	22.7%	2004-05	6.6%
1986-87	0.0%	2005-06	6.8%
1987-88	7.9%	2006-07	6.9%
1988-89	3.8%	2007-08	6.8%
1989-90	1.7%	2008-09	6.8%
1990-91	6.9%	2009-10	13.1%
1991-92	11.5%	2010-11	13.1%
1992-93	3.4%	2011-12	19.0%
1993-94	12.4%	2012-13	15.2%
1994-95	14.8%	2013-14	0.0%
1995-96	3.9%	2014-15	0.0%
1996-97	4.0%	2015-16*	(4.6%)
1997-98	3.9%	2016-17*	(9.6%)
1998-99	4.0%	2017-18	2.1%
1999-00	3.7%	2018-19	2.1%
2000-01	3.4%		
5-Year Average			(2.1%)
10-Year Average			4.7%
20-Year Average			5.9%
37-Year Average			6.4%
37-Year Standard Deviation			6.5%

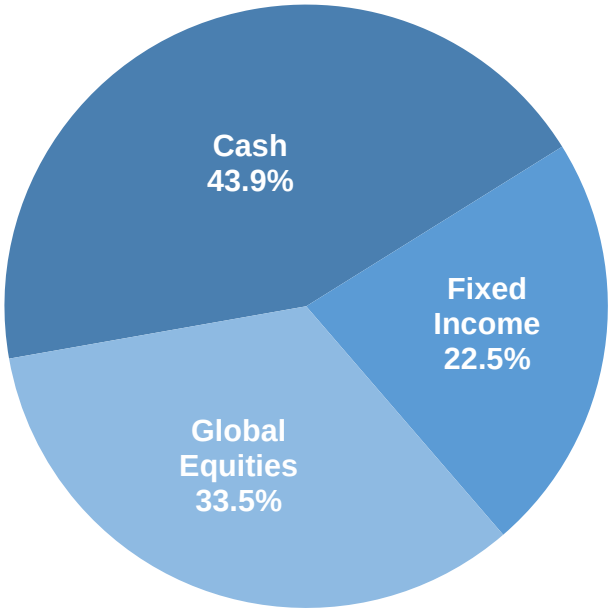
Source: GET Website

**Corrected tuition growth history. Values have been restated from prior report.*

APPENDIX B ★ ASSETS

The chart below shows how Guaranteed Tuition Program (GET) assets are currently invested and reflects the temporary change to provide adequate liquidity for expected transfers under Engrossed Senate Bill 6087. Below the chart are descriptions of those investment types, or asset classes.

2018 GET Fund Asset Allocation



Cash: Highly liquid, very safe investments that can be easily converted into cash, such as Treasury Bills and money-market funds.

Fixed Income: Securities representing debt obligations and usually having fixed payments and maturities. Different types of fixed income securities include government and corporate bonds, mortgage-backed securities, asset-backed securities, convertible issues, and may also include money-market instruments.

Global Equities: Shares of U.S. and non-U.S. corporations that trade on public exchanges or "over-the-counter." The ownership of a corporation is represented by shares that are claimed on the corporation's earnings and assets.

The current Washington State Investment Board (WSIB) Capital Market Assumptions are shown in the following table. The average 6.66 percent portfolio return is a one-year arithmetic return. When compounded over a 15-year period, the arithmetic return decreases to a 6.03 percent median geometric return. We selected a best estimate assumption of 5.65 percent or the 45th percentile of simulated annual returns over a 15-year period. The difference between the median return of 6.03 percent and our best estimate assumption of 5.65 percent represents a small margin for "adverse deviation" given the large degree of uncertainty with future returns.

In response to the potential liquidity needs arising from Unit Cash Value Price (UCVP) transfers, the WSIB temporarily removed constraints on its asset allocation targets and increased the cash position of the fund. Following the conclusion of the UCVP transfer window, we understand the WSIB will return the fund to its previous asset allocation targets. We reviewed the impact of this temporary asset allocation change on the long-term assumed rate of return and concluded the current assumption remains reasonable.

2018 Capital Market Assumptions

Asset	Return	Standard Deviation	Weight
Fixed Income	3.90%	5.50%	40%
Global Equities	8.50%	18.00%	60%
Portfolio	**6.66%**	**11.34%**	**100%**

Correlation	Fixed Income	Global Equities
Fixed Income	1.00	
Global Equities	0.15	1.00

The target asset allocation is currently 60 percent global equity and 40 percent fixed income.

The following table shows the GET Fund Value. The value of the fund includes the market value of assets held by the WSIB along with the present value of the monthly contract receivables. We assume mid-valuation year timing on payments in and out of the fund for purposes of the valuation.

Fund Value	
Market Value of Assets	
(Dollars in Millions)	
Cash	$920
Global Equities	$703
Fixed Income	$472
Total Market Value of Assets	**$2,095**
Present Value of Monthly Contracts	$132
Total Fund Value	**$2,227**

The following table shows the history of investment rates of return for GET since the inception of the program.

Fiscal Year	Investment Return
1999*	4.96%
2000	10.25%
2001	(1.63%)
2002	(2.79%)
2003	7.56%
2004	16.00%
2005	10.07%
2006	8.94%
2007	14.77%
2008	(0.70%)
2009	(16.02%)
2010	12.68%
2011	20.46%
2012	0.07%
2013	9.59%
2014	16.36%
2015	0.83%
2016	0.61%
2017	10.92%
2018	6.35%

**Represents 9-month return.*

APPENDIX C ★ CONTRACT DATA

The following tables summarize units and contracts by the contract enrollment year and initial contract use year. Typically, the enrollment period for a given year ends prior to the valuation date, June 30. For 2017-18, the Guaranteed Education Tuition Program again ended the open enrollment period prior to the valuation date, but allowed participants to purchase units for existing accounts at the 2017-18 unit purchase price through October 31, 2018. However, the table below includes only units sold through June 30, 2018.

Number of Units Sold by Unit Price

Enrollment Year	Unit Price	Units Sold
1998-99	$35	1,374,095
1999-00	38	615,327
2000-01	41	523,702
2001-02	42	2,463,500
2002-03	52	2,099,531
2003-04	57	1,896,635
2004-05	61	2,108,360
2005-06	66	2,146,191
2006-07	70	2,339,431
2007-08	74	2,102,305
2008-09	76	3,177,699
2009-10	101	2,624,367
2010-11	117	2,697,696
2011-12	163*	1,503,962**
2012-13	172*	1,038,773
2013-14	172*	741,701
2014-15	172*	618,367
2015-16***	-	0
2016-17***	-	0
2017-18	$113	770,665

**Includes amortization component, subsequently refunded for unredeemed units at the time of refund.*

***Restated number of units sold.*

****Unit sales suspended.*

Number of Units Outstanding by Use Year

Fiscal Year	Expected Unit Value	Units Starting to be Used
2018*	$106	4,954,080
2019	113	1,220,825
2020	120	1,207,489
2021	128	1,272,533
2022	136	1,160,938
2023	143	1,080,051
2024	150	1,033,266
2025	158	945,492
2026	166	883,398
2027	174	728,507
2028	183	589,656
2029	192	388,666
2030	201	283,475
2031	212	213,667
2032	222	128,476
2033	233	84,202
2034	245	59,427
2035	257	49,600
2036	270	26,706
2037	$284	0

**Includes contracts that already started using units.*

Outstanding Units																				
	Enrollment Year																			
Use Year	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
2018*	241,141	123,444	147,675	502,694	554,110	415,534	529,161	467,264	496,477	356,930	501,733	296,118	223,060	42,490	20,802	9,189	22,123	1,693	2,441	0
2019	1,426	454	16,535	151,760	119,760	79,647	97,680	143,184	135,051	96,724	118,815	107,513	89,502	29,701	13,909	7,513	7,000	162	109	4,378
2020	16,363	341	367	53,089	160,763	98,558	123,595	113,392	151,092	94,500	129,522	97,610	87,274	32,258	20,964	7,616	6,653	566	340	12,627
2021	0	2,992	136	3,316	100,756	164,443	139,414	136,325	128,735	132,270	135,540	120,177	110,501	33,406	24,623	14,222	10,215	77	1	15,381
2022	0	0	3,926	596	2,793	63,778	173,654	155,103	146,328	110,060	181,098	118,852	95,822	37,008	25,906	14,467	10,928	354	274	19,993
2023	0	0	0	10,805	605	1,195	96,825	187,858	168,905	113,624	129,683	148,143	106,758	40,042	24,853	15,515	12,648	222	0	22,370
2024	0	0	0	0	6,947	607	3,090	130,225	222,806	143,648	159,901	98,364	142,288	41,162	23,262	19,111	12,083	0	179	29,596
2025	0	0	0	0	0	2,558	1,689	911	163,403	203,743	161,473	137,685	123,180	49,975	31,298	19,718	14,859	264	0	34,736
2026	0	0	0	0	0	0	2,665	730	1,048	170,449	281,884	141,745	129,756	51,316	41,848	19,232	10,210	0	202	32,312
2027	0	0	0	0	0	0	0	1,806	1,539	3,548	139,859	268,984	152,345	54,249	28,948	25,371	15,058	258	0	36,541
2028	0	0	0	0	0	0	0	0	1,259	514	2,340	162,087	239,828	67,334	40,226	19,371	20,535	0	0	36,162
2029	0	0	0	0	0	0	0	0	0	3,019	1,175	6,398	144,149	113,701	40,885	23,534	19,100	616	463	35,625
2030	0	0	0	0	0	0	0	0	0	0	1,337	4,051	6,663	106,708	72,483	29,825	20,547	12	533	41,316
2031	0	0	0	0	0	0	0	0	0	0	0	2,795	2,609	3,767	71,395	53,547	23,014	284	0	56,257
2032	0	0	0	0	0	0	0	0	0	0	0	0	1,234	860	1,356	40,837	41,572	380	0	42,237
2033	0	0	0	0	0	0	0	0	0	0	0	0	0	593	451	677	27,094	397	340	54,650
2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	838	5	600	0	1,026	56,959
2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	34	0	0	49,565
2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	26,676
2037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*Includes contracts that already started using units.

Outstanding Contracts																				
	Enrollment Year																			
Use Year	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
2018*	1,679	766	873	2,948	3,412	2,361	3,213	2,917	3,117	2,434	3,201	1,994	1,543	461	283	129	79	37	33	0
2019	6	1	60	520	447	309	402	629	566	473	566	512	499	221	143	73	58	2	11	74
2020	101	2	3	177	608	360	514	482	723	491	597	425	476	226	188	82	74	1	1	203
2021	0	21	2	10	354	557	565	594	582	695	635	597	575	273	218	135	104	1	1	117
2022	0	0	21	4	6	249	678	712	683	556	847	568	527	281	223	112	126	4	2	162
2023	0	0	0	68	4	4	368	760	802	620	660	721	573	292	203	133	146	2	1	189
2024	0	0	0	0	38	2	9	515	961	802	800	553	858	313	239	155	129	0	1	217
2025	0	0	0	0	0	17	8	5	691	1,001	870	709	705	446	256	183	184	4	0	251
2026	0	0	0	0	0	0	17	2	4	788	1,409	788	786	425	380	166	149	0	1	267
2027	0	0	0	0	0	0	0	6	6	11	635	1,423	886	461	320	263	181	1	0	295
2028	0	0	0	0	0	0	0	0	4	2	12	805	1,423	566	413	263	286	0	0	308
2029	0	0	0	0	0	0	0	0	0	11	5	21	778	889	441	318	272	3	4	309
2030	0	0	0	0	0	0	0	0	0	0	11	16	56	744	705	400	307	2	1	359
2031	0	0	0	0	0	0	0	0	0	0	0	8	10	16	620	636	409	1	0	460
2032	0	0	0	0	0	0	0	0	0	0	0	0	10	3	7	402	663	2	0	444
2033	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	5	366	3	1	604
2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	1	0	5	613
2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	558
2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	290
2037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*Includes contracts that already started using units.

APPENDIX D ★ PRICE-SETTING GUIDELINES

In 2011, the Guaranteed Education Tuition (GET) Committee adopted new price-setting guidelines that determine how we price future units. These guidelines address the new tuition-setting policy established by the Legislature at that time and were intended to return the program to a fully funded status. The price-setting guidelines adopted in 2011 include the following four parts:

- Expected Cost — Covers the expected cost of future tuition and applicable state-mandated fees.
- Expenses — Contributes to the GET program's operating expenses. GET staff determined the expense amount as part of the 2018-19 Price-Setting Analysis.
- Reserve — Covers unexpected future costs such as above-expected tuition growth or below-expected investment returns. The current price-setting guidelines call for a 15 percent reserve. This component can be increased or decreased to alter the probability that a unit will ever create an unfunded liability in the future.
- Amortization — An optional component that covers unexpected past costs from significant program or policy changes. This component did not apply to the most recent price-setting analysis.

GET Unit Price Information

	2018-19 Enrollment		2017-18 Enrollment
Unit Price	**Best Estimate Range***	**Best Estimate**	**Best Estimate**
Expected Cost	$93.68 - $104.84	$99.14	$94.34
Expenses	4.27	4.27	4.18
Reserve	14.69 - 16.37	15.51	14.78
Amortization	N/A	N/A	N/A
Total Unit Price	**$112.00 - $125.00**	**$118.00**	**$113.00**
Unit Price Adopted**		**$113**	**$113**

Note: Totals may not agree due to rounding.

**Best estimate range based on tuition growth rates shown in this letter.*

***Unit price adopted by the GET Committee.*

The GET Committee, at their September 2018 meeting, adopted a new unit price of $113 for future sales starting on November 1, 2018. Please see the *2018 Price-Setting Analysis* dated September 11, 2018, for further details.

2018 ACTUARIAL VALUATION REPORT

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