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NOVEMBER 2019



2019 ACTUARIAL VALUATION REPORT

Guaranteed Education Tuition Program



Office of the State Actuary

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Report prepared by the Office of the State Actuary

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Letter of Introduction Guaranteed Education Tuition Actuarial Valuation Report As of June 30, 2019

November 2019

This report documents the results of an actuarial valuation of the Guaranteed Education Tuition (GET) program. 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 includes 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.
- ❖ Actuarial Certification Letter.
- ❖ Background.
- ❖ Plan Description.
- ❖ Best Estimate Results.
- ❖ Sensitivity of Best Estimate Results.
- ❖ Appendices.

The **Executive Summary** provides the key results for this actuarial valuation. The **Background** and **Plan Description** sections explain how this valuation complements annual Washington College Savings Plans (WA529) communications, how the Office of the State Actuary (OSA) supports the GET program and 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.



Page 2 of 2

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

Executive Summary

INTENDED USE

The purpose of this report is to provide an annual update of the financial status of the GET program based on a June 30, 2019, measurement date. This report provides valuation results of the funded status for current contracts and the projected funded status, and developments in the program over the past year. This report also discloses the data, assumptions, and methods we – OSA – used to develop the valuation results and shows the sensitivity of the valuation results to key assumptions.

All 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 the GET program throughout a fiscal year. This report is not intended to replace program information supplied by WA529 staff or other analysis supplied by OSA, including analysis provided for the *Comprehensive Annual Financial Report*. Please replace this report when a more recent report becomes available.

COMMENTS ON 2019 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:

- ❖ Lower than expected investment returns for the plan year ending June 30, 2019, (decrease to funded status);
- ❖ Higher than expected distributions over the plan year ending June 30, 2019, due to refunds under the program's temporary special refund rules and account conversions from GET to the DreamAhead College Investment Plan under [Engrossed Senate Bill \(ESB\) 6087](#) (decrease to funded status);
- ❖ Lower than expected tuition growth rates for the School Years 2019-20 and 2020-21 from the continuation of tuition policy that maintains growth rates consistent with Washington State median wage growth (increase to funded status); and
- ❖ Reduction to both the prospective assumed rate of investment return (decrease to funded status) and assumed tuition growth (increase to funded status). The combined impact of both assumption changes increased the funded status.



This valuation reflects unredeemed purchased or contracted units at June 30, 2019, and reflects the impacts of ESB 6087. During the 2018 Legislative Session, the Legislature passed ESB 6087 which allowed the transfer of GET units purchased before July 1, 2015, to the DreamAhead College Investment Plan.

The WA529 Committee, at their September 2019 meeting, adopted a new unit price of \$121 for the 2019-20 enrollment period. We will include the impact of new units purchased or contracted during the 2019-20 enrollment period in next year's actuarial valuation report.

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. This table provides a point-in-time estimate of the health of the program and should not be considered in isolation or as the sole measure of the program's status.

Funded Status Summary		
<i>(Dollars in Millions)</i>	2019	2018
Present Value of Future Obligations	\$1,108	\$1,710
Present Value of Fund	\$1,456	\$2,227
Funded Status	131.3%	130.2%
Reserve/(Deficit)	\$347	\$517

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.

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).

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.

KEY ASSUMPTIONS

The results of this valuation are based on several 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 how we developed the assumptions used in this valuation. Note that both assumptions decreased from those assumed in our last valuation.

Key Assumptions	
Investment Return	
All Years	5.25%
Tuition Growth	
2019-20	2.3%
2020-21	2.2%
2021-29	5.5%
2029-31+	5.0%

Projection of Current Contracts Only (If all Assumptions are Realized)				
(Dollars in Millions); EOY = End of Year				
Fiscal Year	Funded Status	EOY Market Fund Value	EOY Obligation Value	Net Cash Flow
2019	131%	\$1,456	\$1,108	(\$0)
2020	134%	1,441	1,076	(4)
2021	137%	1,424	1,039	(16)
2022	141%	1,396	991	(29)
2023	146%	1,356	930	(46)
2024	153%	1,301	852	(33)
2025	160%	1,260	788	(44)
2026	170%	1,209	713	(50)
2027	183%	1,153	630	(54)
2028	201%	1,095	544	(54)
2029	227%	1,037	457	(49)
2030	263%	985	375	(39)
2031	313%	943	301	(27)
2032	383%	914	239	(15)
2033	481%	897	187	(3)
2034	614%	894	146	6
2035	809%	898	111	13
2036	*	911	83	19
2037	*	930	58	26
2038	*	956	38	33
2039	*	988	22	39
2040	*	1,028	11	46
2041	*	1,074	4	54
2042	*	1,128	1	58
2043	*	1,186	0	62
2044	*	\$1,248	\$0	\$66

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

CONTRACT DATA

The table below summarizes the current contract and unit data used in this valuation for the plan year ending June 30, 2019, as well as for the prior year. Please see the Actuarial Gain/Loss and Reconciliations in 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		
	2019	2018
Number of Current Contracts	67,215	96,611
Number of Units Outstanding	10,418,088	16,310,453



Actuarial Certification Letter



Office of the State Actuary

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Actuarial Certification Letter Guaranteed Education Tuition Actuarial Valuation Report As of June 30, 2019

November 2019

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 (RCW). 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 the GET program. 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.

Washington College Savings Plans (WA529) staff provided the participant and historical data to us. We checked the data for

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reasonableness as appropriate based on the purpose of this valuation. The Washington State Investment Board (WSIB) provided financial and asset information. We did 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 WA529 Committee or their respective staff attempted to bias our work product. We are not aware of any bias that impacted the independence and objectivity of our work.

We intend this valuation to be used by the WA529 Committee during the 2020 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.

Consistent with the Code of Professional Conduct that applies to actuaries, I (Michael T. Harbour) must disclose any potential conflict of interest as required under Precept 7. I purchased and have unredeemed units in GET; however, this does not impair my ability to act fairly. I performed all analysis without bias or influence. The Legislature mandated the Office of the State Actuary (OSA) to perform actuarial services for GET and Matthew M. Smith supervised the actuarial analysis.

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

Michael T. Harbour, ASA, MAAA
Actuary



Background

Background

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

During the 2018 Legislative Session, the Legislature passed ESB 6087. This law allowed the transfer of GET units purchased before July 1, 2015, to the DreamAhead College Investment Plan at a special unit payout value of \$143. The law defined the special payout value as the Unit Cash Value Price (UCVP) and allowed transfers at the UCVP for a specified window to be determined by the WA529 Committee. The 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.

After the closure of the transfer window on September 12, 2018, remaining active accounts that originally purchased units before July 1, 2015, at a price greater than \$117.82 received additional units to reduce their effective purchase price to \$117.82. Lastly, ESB 6087 directed GET to add units to all remaining active accounts who purchased units before July 1, 2015, the lesser of a 15 percent increase to unredeemed units or an increase such that the resulting funded status of the program equals 125 percent. All unit transfers and increases were implemented by March 1, 2019, as mandated under ESB 6087. The results of the *2019 Actuarial Valuation Report* include the full impact of this bill.

[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 (now named the WA529 Committee). The WA529 Committee meets regularly to discuss the goals and status of the program, make administrative decisions, and set the unit price for each enrollment period.

WA529 staff supports the functions of the program and the WA529 Committee by administering the program and staffing WA529 Committee meetings. WA529 staff also prepare studies and reports that are directed to the WA529 Committee by the Legislature. Communications from WA529 staff can be found on the [GET website](#).

Statute also defines the eight-member Legislative Advisory Committee (LAC). The LAC provides advice to the WA529 Committee and OSA regarding the administration of the program.

OSA assists the WA529 Committee and the Legislature by providing actuarial services and consulting. OSA's three primary services for WA529 include:

- ❖ Prepare an annual actuarial valuation of GET (this document) for the WA529 Committee.
- ❖ Prepare unit price-setting analysis for the WA529 Committee.
- ❖ Consult, price, and communicate the effects of potential changes to the GET program for the WA529 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 WA529 staff, OSA's price-setting analysis (when performed), and any other studies or reports created by WA529 staff, OSA, or LAC.



Plan Description

Plan Description

The terms of the GET program are a combination of [RCW 28B.95](#) (determined by the Legislature) and GET participant agreement (determined by the WA529 Committee). Statute provides general guidelines and certain rules for the WA529 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 for the current enrollment period.
- Based on adopted price-setting guidelines.

Units are Purchased

- Maximum of 800 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 200 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 or transferred to another eligible beneficiary.



Best Estimate Results

Best Estimate Results

This section provides details on our best estimate of the present value of obligations, cash flows, assets, and funded status information of the GET program for outstanding units at June 30, 2019. The first subsection shows the present value of future obligations. These obligations represent 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. 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 second subsection shows the market value of the fund along with the actuarial value. That is, the assets currently set aside for the contracts sold as of the valuation date, along with the smoothed measure of assets of the program. The present value of the fund represents both assets currently on hand and the present value of monthly contract receivables.

The obligations and assets combine to produce the program funded status. The funded status of the program is followed by actuarial gain/loss and a short series of tables that reconcile market fund values and outstanding contracts from last year to this year.

ACTUARIAL LIABILITIES AND CLOSED PROGRAM SCENARIO CASH FLOWS

The following table shows the actuarial liabilities (program obligations). The obligations are the sum of the present value of future unit redemptions and administrative expenses. WA529 staff provide the expected administrative expenses until all current outstanding units are redeemed, and we calculate the present value of those expenses.

Present Value of Obligations	
<i>(Dollars in Millions)</i>	
Present Value of Unit Redemptions	\$1,081
Present Value of Administrative Expenses	27
2019 Present Value of Obligations	\$1,108
2018 Present Value of Obligations	\$1,710

At the direction of WA529 staff, we base the present value of future administrative expenses on the estimated annual expenses each year until all units are paid out under a closed program scenario. WA529 staff provide these estimated expenses. We outline the development of the present value of this obligation along with the underlying expense values in the following table.

Development of Expenses		
Fiscal Year	Administrative Expenses	PV of Expenses
2020	\$3,612,908	\$3,521,647
2021	3,191,755	2,955,945
2022	2,477,583	2,180,083
2023	2,026,173	1,693,944
2024	1,552,983	1,233,580
2025	1,599,701	1,207,306
2026	1,561,652	1,119,800
2027	1,612,793	1,098,785
2028	1,662,629	1,076,236
2029	1,616,141	993,961
2030	1,662,707	971,591
2031	1,709,379	949,039
2032	1,756,439	926,524
2033	1,804,105	904,198
2034	1,852,552	882,165
2035	1,901,916	860,496
2036	1,764,897	758,673
2037	1,811,731	739,958
2038	1,859,651	721,643
2039	1,908,633	703,706
2040	1,814,397	635,593
2041	1,597,969	531,855
2042	1,318,787	417,040
2043	\$1,343,844	\$403,766
PV of Expenses		\$27,487,534

Note: PV means Present Value.

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); EOY = End of Year							Cash Inflows			Cash Outflows	
Fiscal Year	Funded Status	Unit Value ¹	Number of Units Used	EOY Market Fund Value ²	Obligation Value	Net Cash Flow	Monthly Contracts	Investment Return	State Contributions	Unit Use	Expense
2019	131%	\$108	784,370	\$1,456	\$1,108	(\$0)	\$19	\$69	\$0	(\$85)	(\$4)
2020	134%	111	790,095	1,441	1,076	(4)	17	69	0	(88)	(3)
2021	137%	117	832,001	1,424	1,039	(16)	15	69	0	(97)	(2)
2022	141%	123	879,016	1,396	991	(29)	14	68	0	(108)	(2)
2023	146%	130	933,816	1,356	930	(46)	12	66	0	(122)	(2)
2024	153%	137	764,470	1,301	852	(33)	10	64	0	(105)	(2)
2025	160%	145	773,910	1,260	788	(44)	8	62	0	(112)	(2)
2026	170%	153	753,314	1,209	713	(50)	7	59	0	(115)	(2)
2027	183%	161	709,794	1,153	630	(54)	6	57	0	(114)	(2)
2028	201%	170	653,133	1,095	544	(54)	5	54	0	(111)	(2)
2029	227%	179	570,937	1,037	457	(49)	4	51	0	(102)	(2)
2030	263%	188	477,530	985	375	(39)	3	49	0	(90)	(2)
2031	313%	197	378,986	943	301	(27)	2	47	0	(75)	(2)
2032	383%	207	294,829	914	239	(15)	2	46	0	(61)	(2)
2033	481%	217	220,242	897	187	(3)	1	46	0	(48)	(2)
2034	614%	228	171,416	894	146	6	1	46	0	(39)	(2)
2035	809%	239	132,820	898	111	13	0	46	0	(32)	(2)
2036	*	251	104,759	911	83	19	0	47	0	(26)	(2)
2037	*	264	78,297	930	58	26	0	48	0	(21)	(2)
2038	*	277	55,223	956	38	33	0	50	0	(15)	(2)
2039	*	291	35,515	988	22	39	0	52	0	(10)	(2)
2040	*	305	19,029	1,028	11	46	0	54	0	(6)	(2)
2041	*	321	4,527	1,074	4	54	0	56	0	(1)	(1)
2042	*	337	60	1,128	1	58	0	59	0	(0)	(1)
2043	*	354	0	1,186	0	62	0	62	0	0	0
2044	*	\$371	0	\$1,248	\$0	\$66	\$0	\$66	\$0	\$0	\$0

¹ Shown in dollars (not in millions).

² Market Fund Value includes present value of monthly contract receivables. Market 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.

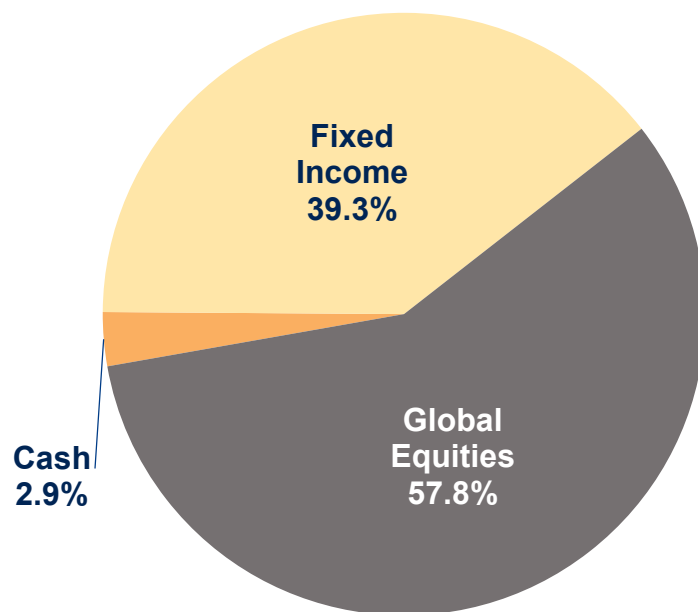
We advise readers to exercise caution when using, distributing, or relying on the projection. As with any projection, these results will only remain accurate if all assumptions are realized. Furthermore, this projection represents current contracts only (no future unit sales) and assumes no future changes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

A large expected reserve develops under this projection because we assume the current reserve of \$347 million will continue to grow with the long-term expected return of 5.25 percent each year. However, 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.

PROGRAM ASSETS

The following chart shows how GET program assets are currently invested.

2019 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 following table shows the GET market 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.

Market Fund Value	
<i>(Dollars in Millions)</i>	
Market Value of Assets at 6/30/2019	
Cash	\$39
Global Equities	\$783
Fixed Income	\$533
Total Market Value of Assets	\$1,355
Present Value of Monthly Contracts	\$101
Total Market Fund Value	\$1,456

The following table shows the actuarial fund value, or smoothed fund value. The actuarial fund value extends the recognition of annual investment gains and losses (returns above or below expected) in order to limit the volatility due to year-to-year market fluctuation. For the purposes of this calculation, we smooth each gain or loss over an eight-year recognition period and limit the resulting actuarial value of assets to within 30 percent of the actual market value of assets as of the valuation date. We then add the best estimate present value of the monthly contract receivables to get the actuarial fund value.

We use the market fund value based on the market value of assets to calculate the best estimate funded status. We provide the actuarial value of assets to help readers evaluate how much a single, point-in-time measurement impacts the program's assets and funded status. Please see the **Sensitivity of Best Estimate Results** section for a funded status calculation based on the actuarial fund value. The use of another asset valuation method may also be reasonable and could produce materially different results. We believe the selected approach (as noted in the prior paragraph) is reasonable given its intended use and may not be appropriate for other uses.

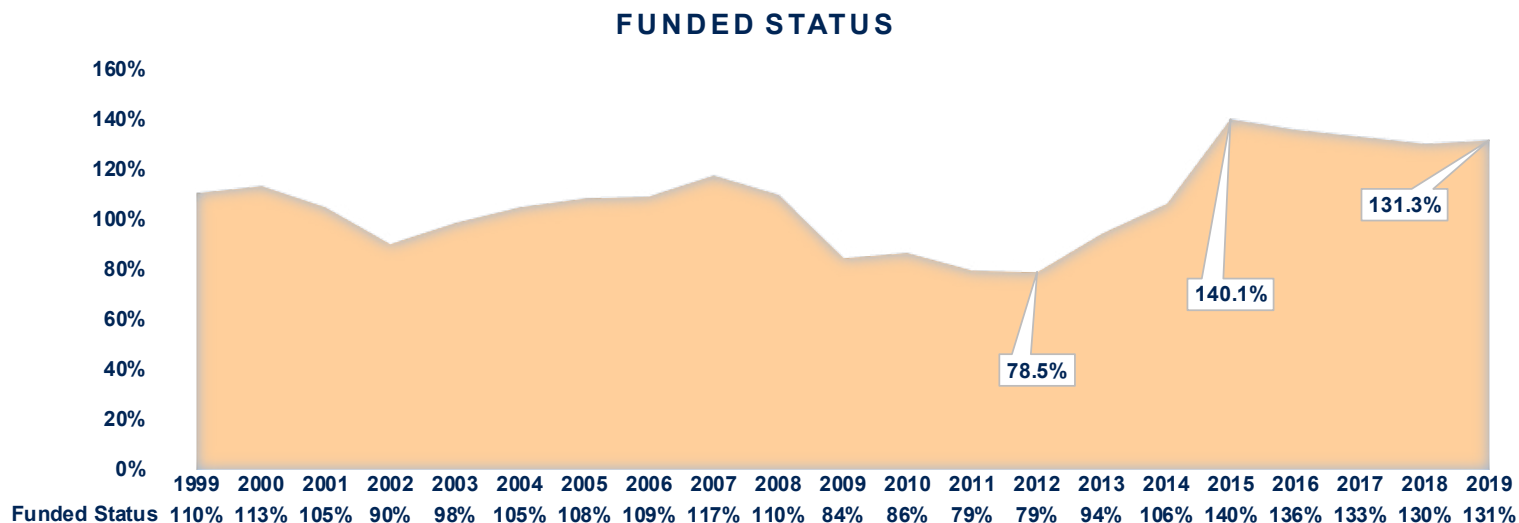
Calculation of Actuarial Fund Value			
<i>(Dollars in Millions)</i>			
a) Market Value at 6/30/2019			\$1,355
Deferred Gains and (Losses)			
Program Year Ending	Years Remaining	Total Deferral	Remaining Deferral
6/30/2019	7	(\$13)	(\$12)
6/30/2018	6	\$20	\$15
6/30/2017	5	\$99	\$62
6/30/2016	4	(\$150)	(\$75)
6/30/2015	3	(\$123)	(\$46)
6/30/2014	2	\$245	\$61
6/30/2013	1	\$70	\$9
b) Total Deferral			\$14
c) Market Value less Deferral 6/30/2019 (a - b)			\$1,340
d) 70% of Market Value of Assets			\$948
e) 130% of Market Value of Assets			\$1,761
f) Actuarial Value of Assets			\$1,340
g) PV of Receivables			\$101
h) Actuarial Fund Value (f + g)			\$1,441

FUNDED STATUS

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 following table calculates the program's funded status and reserve.

2019 Funded Status	
<i>(Dollars in Millions)</i>	
Obligations	
a) Present Value of Unit Redemptions	\$1,081
b) Present Value of Administrative Expenses	\$27
c) Present Value of Obligations (a+b)	\$1,108
Market Fund Value	
d) Assets	\$1,355
e) Present Value of Monthly Contract Receivables	\$101
f) Present Value of Fund (d+e)	\$1,456
Calculation of Funded Status	
g) Present Value of Fund (f)	\$1,456
h) Present Value of Obligations (c)	\$1,108
i) Ratio of Market Fund Value to Obligations (g/h)	131.3%
j) Reserve / (Deficit) (g-h)	\$347

The following chart demonstrates the program's funded status history.



The reserve/(deficit) in the Funded Status table 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 most cash inflows up front, like the GET program, 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.

ACTUARIAL GAIN/LOSS AND RECONCILIATIONS

The following table demonstrates actuarial gains and losses. 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 obligations and assets 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. The gain/loss on investment earnings represents the gain or loss on all investment income including investment gain/loss on contributions and disbursements.

Gain/(Loss) Analysis		
Change in Obligations and Assets by Source		
	Obligations	Assets
2018 Results	\$1,710	\$2,227
Changes in 2019		
Expected Change	(\$62)	(\$32)
ESB 6087	(\$587)	(\$801)
Program Obligations		
Tuition Payments*	\$28	N/A
New Units Purchased or Contracted	\$67	N/A
Other	(\$1)	N/A
Total Program Obligations Gains/Losses	\$94	N/A
Program Assets		
Distributions	N/A	\$45
Contributions	\$0	\$0
Existing Contracts	N/A	(\$7)
New Unit Sales	N/A	\$56
Contract Receivables	\$0	\$0
Existing Contracts	N/A	(\$20)
New Unit Sales	N/A	\$19
Investment Earnings	N/A	(\$33)
Other	N/A	\$0
Total Program Assets Gains/(Losses)	N/A	\$60
Additional Changes		
Tuition Growth Assumption Change**	(\$88)	N/A
Investment Return Assumption Change	\$28	\$2
Method Change	N/A	N/A
Update of Administrative Expenses	\$13	N/A
Total Additional Changes Gains/Losses	(\$47)	\$2
Total Change in 2019	(\$602)	(\$771)
2019 Results	\$1,108	\$1,456

Note: Totals may not agree due to rounding.

**Includes other unit changes such as refunds, conversions, and rollovers.*

***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	
<i>(Dollars in Millions)</i>	
2018 Market Value of Assets	\$2,168
Changes in Net Asset Value	
Revenue	
Lump Sum Unit Purchases	\$56
Custom Monthly Unit Purchases	\$20
Investment Return	\$82
Other Revenue	\$0
Total Revenue	\$158
Disbursements	
Refunds	(\$29)
Redemptions	(\$60)
Rollovers	(\$18)
DreamAhead Transfers	(\$858)
Expenses	(\$1)
Other Disbursements	\$69
Total Disbursements	(\$898)
Net Cash Flow	(\$740)
Payables	\$0
2019 Market Value of Assets	\$1,355

Change in PV of Monthly Contract Receivables	
<i>(Dollars in Millions)</i>	
PV of Monthly Contracts at June 30, 2018	\$132
Changes in PV Monthly Contracts	
Actual Payments Received in 2019	(20)
Interest Adjustment	7
Interest on Advanced Payment	0
Account Downgrades	(0)
Account Conversions*	(28)
ESB 6087 Unit Change	(12)
PV of Monthly Contracts for New Units in 2019	19
Other**	2
Preliminary PV Receivables at June 30, 2019	\$99
Assumption Changes or Program Changes	2
Total Changes in PV Monthly Contracts	(\$31)
PV of Monthly Contracts at June 30, 2018	\$101

*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, 2018¹	16,310,453
Changes in PV Monthly Contracts	
New Units Purchased	639,646
Units Redeemed	(565,631)
Units Refunded ²	(287,194)
Units Defaulted	(10,026)
Units Downgraded ³	(29,687)
Non-incentive Rollover Units to 529 Plans ⁴	(248,308)
ESB 6087 Unit Change	
Phase One Incentive Rollover Units to DreamAhead	(6,049,972)
Phase Two Units Added	113,719
Phase Three Units Added	543,612
Total ESB 6087 Unit Change	(5,392,641)
Distribution Reversals ⁵	1,089
Other	387
Number of Outstanding Units at June 30, 2019¹	10,418,088

¹ GET reports two fewer outstanding units.

² Includes Custom Monthly contract conversions prior to refund and rebase adjustments for refunds.

³ Customer-requested account changes.

⁴ Includes non-incentive rollovers to DreamAhead and other states' 529 plans.

⁵ Reversals for unused distributions in prior fiscal year.



Sensitivity of Best Estimate Results

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 and tuition growth to illustrate the sensitivity of the results to these assumptions. We also show the sensitivity of the June 30, 2019, best estimate funded status using the actuarial fund value.

CLOSED PROGRAM SCENARIO SENSITIVITY

The following table shows the best estimate results under a closed program scenario. This scenario is based on current contracts only, assuming 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% Assumed Return	-1% Assumed Return	Best Estimate	+1% Assumed Return
PV of Fund	\$1,456	\$1,456	\$1,456	\$1,464	\$1,460	\$1,456	\$1,452
PV of Obligations	\$1,167	\$1,108	\$1,054	\$1,271	\$1,185	\$1,108	\$1,039
Reserve/(Deficit)	\$289	\$347	\$401	\$193	\$274	\$347	\$413
2019 Funded Status	125%	131%	138%	115%	123%	131%	140%
Projected Funded Status (as of June 30)							
2020	127%	134%	141%	116%	125%	134%	143%
2021	129%	137%	145%	118%	127%	137%	147%
2022	132%	141%	150%	119%	130%	141%	153%
2023	136%	146%	157%	121%	133%	146%	159%
2024	141%	153%	166%	124%	138%	153%	169%
2025	146%	160%	175%	127%	143%	160%	179%
2026	153%	170%	188%	131%	149%	170%	192%
2027	163%	183%	205%	137%	158%	183%	210%
2028	176%	201%	229%	144%	171%	201%	235%
2029	195%	227%	263%	154%	188%	227%	271%
2030	221%	263%	311%	169%	212%	263%	321%
2031	257%	313%	378%	189%	246%	313%	392%
2032	307%	383%	472%	216%	292%	383%	491%
2033	377%	481%	602%	253%	356%	481%	630%
2034	473%	614%	782%	304%	443%	614%	821%
2035	611%	809%	**	377%	570%	809%	**
2036	822%	**	**	487%	761%	**	**
2037	**	**	**	672%	**	**	**
2038	**	**	**	**	**	**	**

Note: PV means Present Value

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

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

ACTUARIAL FUND VALUE SENSITIVITY

The following table shows the program funded status under a closed program scenario calculated under the actuarial fund value compared to the best estimate funded status calculated under the market fund value.

Sensitivity to Market Fund Value		
Closed Program*		
(Dollars in Millions)	Best Estimate	Actuarial Fund Value
PV of Fund	\$1,456	\$1,441
PV of Obligations	\$1,108	\$1,108
Reserve/(Deficit)	\$347	\$333
Funded Status	131%	130%

Note: PV means Present Value.

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

TERMINATED PROGRAM SCENARIO RESULTS

Terminated Program Scenario Cash Flows

The WA529 Committee or Legislature may decide to close or terminate the program in the future. If the program enters a termination scenario, WSIB may change the program's asset allocation to increase liquidity. In turn, a closed or terminated program scenario 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. This section demonstrates how the terminated program measurements change when we assume lower rates of return.

We show the termination liability under [RCW 28.B95.090](#) and the corresponding expected cash flows if 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 \$1.042 billion and the market fund value would be \$1.367 billion, which would result in a reserve of \$325 million and a funded status of 131 percent. This represents the funded status if the program were terminated at the valuation date and before the immediate payout occurs. The decrease in liability is due to the immediate payout at a lower than expected unit value for a portion of the contract holders and a portion of the outstanding monthly contracts

being canceled. The decrease in market fund value (compared to the closed program scenario 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 Market Fund Value ²	BOY Obligation Value	Net Cash Flow	Monthly Contracts	Investment Return	State Contributions	Unit Use	Expense
2019	131%	\$108	4,833,755	\$1,367	\$1,042	(\$465)	\$6	\$58	\$0	(\$524)	(\$4)
2020	162%	111	790,095	897	555	(42)	4	44	0	(88)	(3)
2021	173%	117	832,001	851	491	(55)	2	42	0	(97)	(2)
2022	192%	123	879,016	794	414	(71)	1	39	0	(108)	(2)
2023	224%	130	933,816	722	323	(88)	0	35	0	(122)	(2)
2024	297%	137	611,213	634	213	(54)	0	31	0	(84)	(2)
2025	423%	145	472,366	579	137	(41)	0	29	0	(68)	(2)
2026	743%	153	311,158	538	72	(22)	0	27	0	(48)	(2)
2027	*	161	153,173	515	26	0	0	26	0	(25)	(2)
2028	*	\$170	0	\$515	\$0	\$27	\$0	\$27	\$0	\$0	\$0

¹ Shown in dollars (not in millions).

² Market Fund Value includes present value of monthly contract receivables. Market 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.

Terminated Program Scenario Sensitivity

Program termination may occur during periods of either low economic growth or a high tuition growth environment. Historically, lower rates of investment return correlate with higher tuition growth rates. In addition, if the program were terminated, WSIB may change the program's asset allocation. That in turn may lead to a lower assumed rate of investment return. The following table shows how our best estimate results under program termination change when assuming lower assumed rates of investment return and an increase in tuition growth rates.

Sensitivity of Results to Key Assumptions			
Terminated Program*			
(Dollars in Millions)	Best Estimate	+1% Tuition / -1% Assumed Return	+1% Tuition / -2% Assumed Return
PV of Fund	\$1,367	\$1,367	\$1,367
PV of Obligations	\$1,042	\$1,079	\$1,105
Reserve/(Deficit)	\$325	\$288	\$262
2019 Funded Status	131%	127%	124%
Projected Funded Status (as of June 30)			
2020	162%	151%	145%
2021	173%	160%	152%
2022	192%	174%	164%
2023	224%	200%	186%
2024	297%	256%	234%
2025	423%	353%	315%
2026	743%	599%	521%
2027	**	**	**
2028	**	**	**

Note: PV means Present Value.

*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.



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	
All Years	5.25%
Tuition Growth (Excludes Differential Tuition)	
2019-20	2.3%
2020-21	2.2%
2021-29	5.5%
2029-31+	5.0%

Expected investment returns are based on WSIB's most recent Capital Market Assumptions (CMAs), current asset allocation, and simulated returns over a period appropriate for the purpose of the measurement. In determining that period, we consider, among other factors, the duration of the program's liabilities at the measurement date. 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 the **Best Estimate Results** section and **Appendix B**.

We updated our tuition growth model with the *2015 GET Experience Study* to model short term changes in tuition policy with long-term tuition growth trends. We use a tuition growth model, information from the most recently enacted state budget, and our professional judgment to set tuition growth rates. Our 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 20 years, this has increased by about 4.5 percent per year. We assume it will grow by 5.0 percent in the future. 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 5.0 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 35 percent (in 2019). 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 approximately 30 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.

We combine these three steps of the model to inform our expectations for the future and rely on professional judgment in setting the best estimate tuition growth assumptions.

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 to 4 percent per year. However, the current Legislature cannot obligate a future Legislature. The long-term sustainability of the current higher education budget is not certain, and past experience 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 current biennium that we believe are more reflective of long-term practices and consistent with our expectations for the future.

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, 2019, would rise from 131 percent to 152 percent and the reserve would increase from \$352 million to \$491 million.

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 decrease, as base tuition may not need to increase as fast with higher differential tuition making up the difference.

**Tuition Growth Assumption
Alternate Growth Scenario**

School Year	Annual Tuition Growth
2020-21	2.2%
2021-22	1.9%
2022-23	2.1%
2023-24	2.3%
2024-25	2.5%
2025-26	2.7%
2026-27	2.9%
2027-28	3.1%
2028-29	3.2%
2029-30	3.4%
2030-31+	3.5%

Consistent with the *2015 GET Experience Study* and input from WA529 (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 with administrative expenses provided by WA529 staff.

In prior valuations, we assumed non-investment program expenses would grow at a rate of 3.50 percent per year. This assumption is no longer used in the valuation.

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. Please see the *2015 GET Experience Study* or the *2019 Price-Setting Analysis* dated October 31, 2019, for further details.

BEHAVIORAL ASSUMPTIONS

We've made the following assumptions for GET contract holders.

- ❖ **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%

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.

In valuations prior to 2015, we projected future unit sales to model new unit purchases. For valuations since 2015 and 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 the 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.

For these projected future unit sales, we assumed the WA529 Committee would continue to follow their past price-setting guidelines throughout the projection period. These guidelines were substantially similar but not identical to those found in **Appendix D** of this report.

While this valuation does not consider the impact of future unit sales, **Appendix D** of this report outlines the best estimate unit price for the prior and upcoming enrollment periods, the price setting guidelines used to determine the best estimate, and the unit price adopted by the WA529 Committee. The best estimate is based on the expected investment returns and tuition growth discussed in the Economic Assumptions subsection. We assumed that neither the Legislature nor the WA529 Committee will make changes to the program over the enrollment 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 the GET program 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 for how invested money will grow over time. In this case, we've assumed a growth rate of 5.25 percent, which means \$1 today is worth \$1.0525 next year due to investment earnings. Discounting moves the opposite way and states that \$1.0525 a year from now will be worth \$1 today. Discounting all 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 WA529 staff. We relied on this data as accurate and complete, and valued 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 and standard deviation over different time periods.

Historical Tuition Growth			
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	(5.0%)
1997-98	3.9%	2016-17	(9.1%)
1998-99	4.0%	2017-18	2.1%
1999-00	3.7%	2018-19	2.1%
2000-01	3.4%	2019-20	2.3%

Historical Tuition Growth		
Time Period	Average	Standard Deviation
5-Years	(1.6%)	4.7%
10-Years	3.6%	9.0%
20-Years	5.8%	6.8%
38-Years	6.3%	6.4%

Appendix B ★ Assets

The table below provides information on the types of asset investments, or asset classes, and current WSIB Capital Market Assumptions. The target asset allocation is currently 60 percent global equity and 40 percent fixed income. For additional information on the program's assets, see the **Best Estimate Results** section.

2019 Capital Market Assumptions			
Asset	Return	Standard Deviation	Weight
Fixed Income	4.40%	6.00%	40%
Global Equities	8.50%	18.50%	60%
Portfolio	6.86%	11.70%	100%
Correlation	Fixed Income	Global Equities	
Fixed Income	1.00		
Global Equities	0.15	1.00	

The average 6.86 percent portfolio return represents a one-year arithmetic return. When simulated over multiple years consistent with our measurement, the median geometric return will fall below the one-year arithmetic return. For example, the simulated median geometric return over a 5- or 15-year period equals 5.79 percent or 5.92 percent, respectively. In selecting a best estimate assumption of 5.25 percent, we considered the duration of the program's liabilities at the measurement date and simulated returns between the 45th and 50th percentiles. We consider the difference between the 45th and 50th percentiles a reasonable margin for "adverse deviation" given the significant degree of uncertainty in estimating future returns.

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

Historical Investment Returns	
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%
2019	5.29%

**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.

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
2018-19	\$113	639,646

*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
2019*	\$108	2,698,861
2020	111	696,557
2021	117	802,802
2022	123	792,473
2023	130	776,515
2024	137	758,004
2025	145	742,483
2026	153	703,516
2027	161	576,051
2028	170	490,987
2029	179	343,570
2030	188	276,071
2031	197	212,677
2032	207	155,115
2033	217	115,686
2034	228	99,178
2035	239	82,430
2036	251	72,340
2037	264	22,471
2038	277	300
2039	\$291	0

*Includes contracts that already started using units.

Outstanding Units																					
Use Year	Enrollment 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	2018-19
2019*	111,166	61,651	73,945	303,308	290,698	209,986	269,452	272,372	276,986	213,983	243,247	146,258	124,478	36,432	22,299	11,051	28,460	748	721	1,620	0
2020	16,737	122	315	32,214	93,629	50,819	67,593	64,377	93,154	61,698	61,588	46,178	44,379	21,134	15,396	6,337	4,850	606	364	12,781	2,285
2021	0	2,598	170	1,988	58,665	107,775	88,100	86,933	80,515	82,525	79,925	66,448	56,352	24,487	20,711	11,297	8,445	0	2	15,635	10,232
2022	0	0	3,027	994	1,528	44,638	123,075	101,432	98,737	75,477	114,538	69,416	53,778	25,742	18,944	15,698	10,302	379	294	23,455	11,018
2023	0	0	0	11,160	754	1,158	66,938	135,070	119,036	79,460	82,883	94,625	68,866	28,911	24,434	13,032	12,054	237	0	23,878	14,018
2024	0	0	0	0	8,515	650	2,030	88,861	166,144	100,434	103,835	68,686	91,410	35,382	19,059	15,903	12,074	0	192	31,389	13,441
2025	0	0	0	0	0	1,064	243	460	128,473	150,244	118,625	97,497	84,005	43,374	27,153	18,385	13,148	155	0	40,435	19,220
2026	0	0	0	0	0	0	5,453	777	883	124,534	214,410	100,177	93,618	45,164	39,112	16,702	9,141	0	216	36,075	17,256
2027	0	0	0	0	0	0	0	3,100	889	4,036	96,710	192,217	109,229	47,297	26,664	22,869	12,321	0	0	40,264	20,456
2028	0	0	0	0	0	0	0	0	1,866	550	2,350	116,280	173,008	59,213	39,122	17,350	19,366	0	0	40,580	21,303
2029	0	0	0	0	0	0	0	0	0	3,096	1,175	4,221	103,625	97,647	37,296	21,625	17,141	0	280	39,299	18,164
2030	0	0	0	0	0	0	0	0	0	0	2,098	3,384	5,782	89,238	64,877	26,639	19,470	1	570	45,051	18,961
2031	0	0	0	0	0	0	0	0	0	0	0	3,120	2,523	2,278	59,723	42,501	20,634	0	0	62,332	19,567
2032	0	0	0	0	0	0	0	0	0	0	0	0	1,914	658	1,525	36,308	40,089	103	0	47,090	27,429
2033	0	0	0	0	0	0	0	0	0	0	0	0	0	1,367	472	806	21,304	425	364	62,611	28,338
2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	644	600	0	1,000	64,636	32,263
2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	57,997	24,427
2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	31,355	40,954
2037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	605	21,867
2038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300
2039	0	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																					
Use Year	Enrollment 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	2018-19
2019*	899	451	494	1,781	2,014	1,395	1,923	1,946	2,045	1,684	1,928	1,246	1,038	407	303	132	95	27	28	34	0
2020	97	1	3	110	380	212	320	300	475	326	331	229	264	153	139	61	51	1	1	145	24
2021	0	23	2	8	219	371	385	406	384	470	397	345	329	191	164	103	77	0	1	101	109
2022	0	0	18	5	3	175	463	497	473	409	562	363	335	203	163	88	99	3	2	144	85
2023	0	0	0	66	4	4	260	556	586	463	449	472	369	217	159	105	112	2	0	164	108
2024	0	0	0	0	51	2	8	347	707	591	539	394	589	239	180	120	98	0	1	199	129
2025	0	0	0	0	0	11	1	3	520	732	658	497	505	343	202	148	138	2	0	226	163
2026	0	0	0	0	0	0	25	2	6	585	1,046	577	560	338	304	127	108	0	1	229	182
2027	0	0	0	0	0	0	0	15	4	10	448	1,025	640	356	248	208	142	0	0	272	178
2028	0	0	0	0	0	0	0	0	8	2	10	579	1,000	439	329	202	207	0	0	285	178
2029	0	0	0	0	0	0	0	0	0	11	5	12	537	663	342	259	203	0	3	283	196
2030	0	0	0	0	0	0	0	0	0	0	10	12	50	551	550	317	241	1	1	317	213
2031	0	0	0	0	0	0	0	0	0	0	0	9	8	9	468	465	314	0	0	425	242
2032	0	0	0	0	0	0	0	0	0	0	0	0	11	2	6	309	482	1	0	408	333
2033	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	5	253	3	1	547	300
2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	4	558	366
2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	522	341
2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	275	490
2037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	277
2038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2039	0	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 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 payment of administrative expenses. We calculate this amount as the present value of expected administrative expenses per outstanding unit and adjust forward for one year of interest.
- ❖ **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.

The WA529 Committee, at their September 2019 meeting, adopted a new unit price of \$121 for future sales starting on November 1, 2019. Please see the *2019 Price-Setting Analysis* dated October 31, 2019, for further details.

GET Unit Price Information			
2019-20 Enrollment			2018-19 Enrollment
Unit Price	Best Estimate Range*	Best Estimate	Best Estimate
Expected Cost		\$102.86	\$99.14
Expenses		2.78	4.27
Reserve		15.85	15.51
Amortization		N/A	N/A
Total Unit Price	\$112.00 - \$131.00	\$121.00	\$118.00
Unit Price Adopted**		\$121.00	\$113.00

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 WA529 Committee.*



2019 ACTUARIAL VALUATION REPORT

Guaranteed Education Tuition Program



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

NOVEMBER 2019