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*"Supporting financial security for generations."*

**2021**

**ACTUARIAL  
VALUATION  
REPORT**



**Guaranteed Education Tuition Program**

**NOVEMBER 2021**



**Office of the State Actuary**  
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**Letter of Introduction**  
**Guaranteed Education Tuition Program**  
**Actuarial Valuation Report**  
**As of June 30, 2021**

November 2021

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 current and projected funded status for current contracts. 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 is organized in the following sections:

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

The **Executive Summary** provides the key results for this actuarial valuation. The **Background** section explains how this valuation complements annual Washington College Savings Plans (WA529) communications, how the Office of the State Actuary (OSA) supports the GET program, and provides a general understanding of the GET program. The next two sections provide detailed actuarial asset, liability, and cash flow information. The **Appendices** describe the key assumptions and methods, assets, participant data, and additional information used to prepare this valuation. It also includes information on the most recently adopted unit price including the assumptions and methods that went into the best estimate unit price calculation.

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](mailto:state.actuary@leg.wa.gov). We also invite you to visit WA529's website for further information regarding Washington's GET program.

Sincerely,

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

Sarah Baker  
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, 2021, measurement date. This report provides valuation results of the funded status for current contracts, 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.

This report is one of several key documents related to the GET program throughout a fiscal year and 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 or OSA. This report is also not intended to replace program information supplied by WA529 staff or other analysis supplied by OSA, including analysis provided for the annual comprehensive financial report. Please replace this report when a more recent report becomes available.

### COMMENTS ON 2021 RESULTS

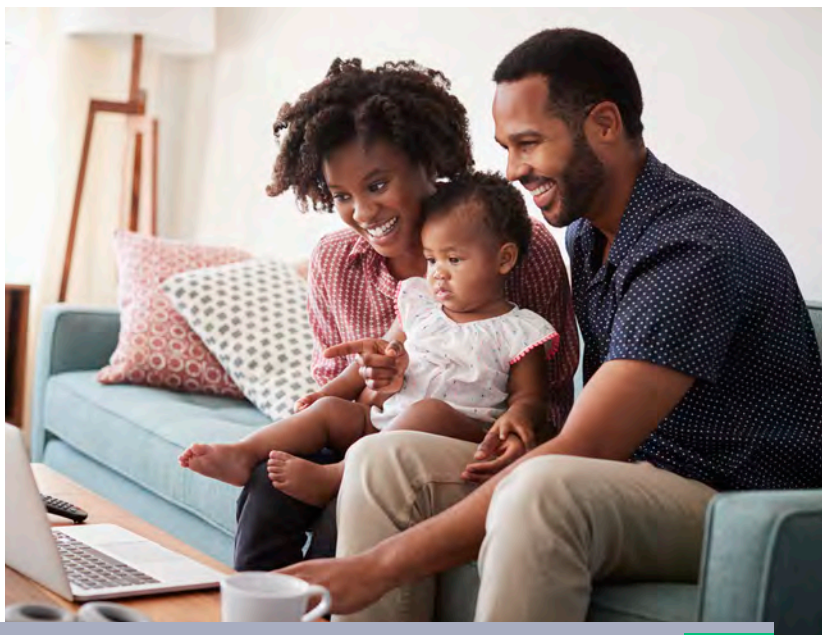
Many factors can influence how actuarial valuation results change from one measurement date to the next. Those factors include – changes in the covered population; changes in program provisions, assumptions, and methods; and experience that varies from our expectations.

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

- ❖ Investment returns of 16.84 percent exceeding the expected 4.75 percent for the plan year ending June 30, 2021, (increase to funded status);
- ❖ New assumptions from the 2021 GET Experience Study, including a reduction to assumed future tuition growth (increase to funded status);
- ❖ Implementation of Senate Bill (SB) 5430, passed during the 2021 Legislative Session, retroactively reducing the price of a 2020-21 enrollment unit (decrease to funded status); and
- ❖ The addition of new units purchased after last year's actuarial valuation (increase to funded status).

This valuation reflects unredeemed purchased or contracted units at June 30, 2021. Please see the Gain/Loss Analysis in the **Best Estimate Results** Section for information on other factors.

The WA529 Committee, at their September 2021 meeting, adopted a new unit price of \$114.01, equivalent to the 2021-22 payout value, for the 2021-22 enrollment period and retroactively reduced the 2019-20





and 2020-21 enrollment period price to \$114.01. The impact of the retroactive price adjustment to \$114.01 is not reflected in this report but will be included in the *2022 Actuarial Valuation Report*. Next year’s actuarial valuation will also include the impact of new units purchased or contracted during the next enrollment period. Please see **Appendix D – Price Setting Guidelines** for more information regarding recent unit price changes.

The results of the valuation exclude the impacts of differential, or tiered tuition. Under a differential tuition model that could potentially impact GET, a public Washington university would charge different levels of resident, undergraduate tuition or fees based on the student field of study, market value of degree, student demand for the major, or the cost of instruction. 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 using both a market fund value and actuarial fund value. 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				
	Market Fund Value		Actuarial Fund Value	
<i>(Dollars in Millions)</i>	2021	2020	2021	2020
<b>Present Value of Future Obligations</b>	\$1,092	\$1,190	\$1,092	\$1,190
<b>Present Value of Fund</b>	\$1,813	\$1,559	\$1,652	\$1,538
<b>Funded Status</b>	166.1%	131.0%	151.4%	129.2%
<b>Reserve/(Deficit)</b>	\$722	\$369	\$561	\$348

Each fund value measure provides a different assessment of the funded status. The market fund value relies on the market value of assets as its core component, while the actuarial fund value similarly relies on the actuarial value of assets.

The actuarial fund value is based on a method that smooths (or defers) unexpected annual asset experience over a period of eight years. This method serves to reduce the volatility in the funded status measure due to investment experience. Please see the Calculation of the Actuarial Value of Assets table in the Program Assets subsection of the **Best Estimate Results** section for more information.

**RISKS INHERENT IN ACTUARIAL MEASUREMENTS**

Readers should exercise caution when interpreting and reaching conclusions based on a single, point-in-time measurement. In the course of conducting actuarial analyses, we make many assumptions. In some cases, small changes in these assumptions, or experience that plays out differently than expected, can lead to significant changes in the measurements.

For example, 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.

To evaluate how the point-in-time measurements may change, we perform sensitivity analysis—a process for assessing the impact of a change in an actuarial assumption or method on an actuarial measurement. Please see the **Sensitivity of Best Estimate Results** section and the **Appendices** for more information, including the results of the sensitivity analysis.

**PROJECTION OF CURRENT CONTRACTS**

The next table shows a projection of the program’s funded status at future even-year measurement dates 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). A full version of this table can be found in the **Best Estimate Results** section.

Projection of Current Contracts Only (If All Assumptions Are Realized)				
<i>(Dollars in Millions); EOY = End of Year</i>				
Fiscal Year	EOY			
Ending June 30	Funded Status	Obligation Value	EOY Fund Value	Net Cash Flow
2021	166%	\$1,092	\$1,813	N/A
2023	179%	1,008	1,800	(1)
2025	199%	876	1,745	(22)
2027	235%	705	1,658	(35)
2029	291%	547	1,593	(26)
2031	389%	397	1,544	(16)
2033	553%	278	1,538	5
2035	816%	193	1,575	25
2037	*	127	1,643	38
2039	*	72	1,736	49
2041	*	30	1,855	64
2043	*	8	2,011	82
2045	*	\$1	\$2,199	\$98

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

A large funded status develops under this projection because we assume the current reserve of \$722 million will continue to grow with the long-term expected 4.75 percent rate of investment return each year. All other actuarial assumptions are realized under this projection and we further assume no future program changes. Actual experience may vary. Additionally, if the program were permanently closed or terminated in the future, the program’s asset allocation may change, leading to a lower assumed rate of investment return.

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

**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 sections in the **Appendices** for how we developed the



assumptions used in this valuation. Note that the investment return assumption reflects the 2021 Capital Market Assumptions (CMAs) from the Washington State Investment Board (WSIB) and the Tuition Growth assumption reflects the results of the 2021 GET Experience Study.

Key Assumptions	
Investment Return	
All Years	4.75%
Tuition Growth	
2021-25	2.7%
2025-26+	4.0%

## CONTRACT DATA

The following table summarizes the current contract and unit data used in this valuation for the plan year ending June 30, 2021, as well as for the prior year. Please see the Participant Data 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		
	2021	2020
Number of Current Contracts	67,820	67,153
Number of Units Outstanding	10,299,430	10,289,070



# Actuarial Certification Letter



**Actuarial Certification Letter  
Guaranteed Education Tuition Program  
Actuarial Valuation Report  
As of June 30, 2021**

November 2021

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 subsequent changes to the Investment Return and Tuition Growth assumptions, we developed the assumptions used in this valuation during the [2021 GET Experience Study](#). We provide supporting analysis for the Investment Return and Tuition Growth assumptions in the **Appendices** of this report.

Actuarial 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 projected administrative expense data to us. We checked the data for 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 matters that impacted the independence and objectivity of our work.

We intend this valuation to be used by the WA529 Committee during the 2022 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 (Luke Masselink) 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 also certified 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

Luke Masselink, ASA, EA, MAAA  
Senior Actuary





**Background**



## BACKGROUND

### PROGRAM HISTORY AND GOALS

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.

[RCW 28B.95](#) outlines the purpose of the GET program along with general guidelines regarding how it is administered. It includes the following goals:

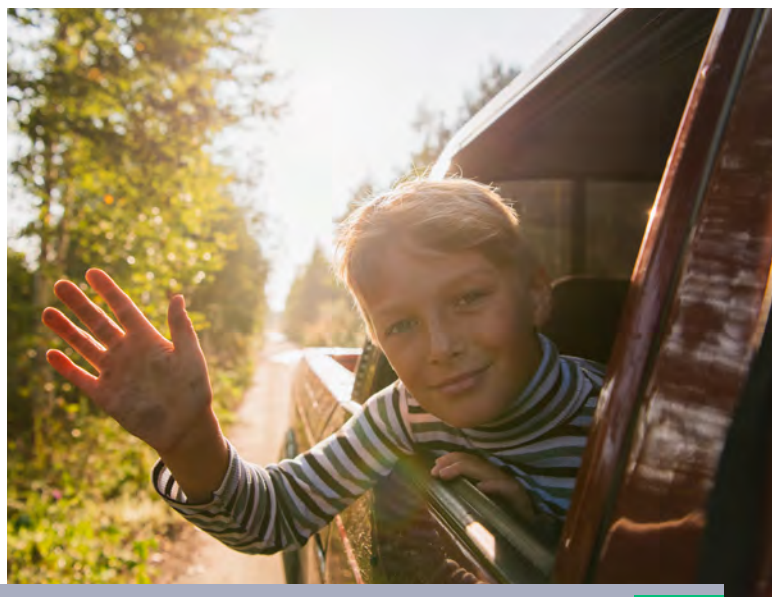
- ❖ Help make higher education affordable and accessible to all citizens of the state of Washington;
- ❖ Provide an additional financial option for individuals, organizations, and families to save for college;
- ❖ Encourage savings and enhance the ability of Washington citizens to obtain financial access to institutions of higher education;
- ❖ Encourage elementary and secondary school students to do well in school as a means of preparing for and aspiring to higher education attendance; and
- ❖ Promote a well-educated and financially secure population to the ultimate benefit of all citizens of the state of Washington.

The statute establishes the five member Committee on Advanced Tuition Payment and College Savings also known as 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 [Washington Student Achievement Council \(WSAC\) website](#).

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.



**PLAN DESCRIPTION**

The terms of the GET program are a combination of RCW 28B.95 (determined by the Legislature) and the GET participant agreement (determined by the WA529 Committee). Statute provides general guidelines and certain rules for the WA529 Committee, whereas the GET participant agreement states all specific details for the purchaser.

The main plan provisions are outlined in the following graphic 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 the [GET website](#), which includes both summarized plan provisions and the full GET participant agreement. If the following summary conflicts with relevant statute or the GET participant agreement, the relevant statute and participant agreement supersede this summary.

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



**TERMINATED PROGRAM**

The WA529 Committee or Legislature has the ability to close or terminate the program in the future under [RCW 28B.95.090](#). Under a termination scenario, all outstanding units outside four years of unit use would be 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.

In prior actuarial valuation reports, we provided projected obligations and assets under a terminated program scenario. Given the uncertain conditions of the plan under which a termination is likely to occur, we removed the scenario from this report. This analysis can be prepared upon request.

## 2021 LEGISLATION

During the 2021 Legislative Session, SB 5430 passed into law. This legislation (1) retroactively reduced the 2020-21 GET enrollment unit price from \$133, as adopted by the WA529 Committee in September of 2020, to \$122, and (2) when certain conditions are met, limited future unit prices to 110 percent of the unit payout value at the time of unit price adoption. The conditions for price limitations are as follows:

1. The best estimate funded status of the program is in excess of at least 120 percent as of July 1 of each year; and
2. Tuition and fee increases for the upcoming academic year are below the limits set under current law.

We reflect the impacts of this legislation in this report. For more information on these changes, please see the subsection Participant Data in the **Best Estimate Results** section.







**Best Estimate Results**



## BEST ESTIMATE RESULTS

This section provides details on our best estimate of the GET present value of obligations, assets, cash flows, and funded status information for outstanding units at June 30, 2021. Also provided in this section is a summary of the participant data used to derive these estimates.

The first subsection shows an overview of the program participant data as of the valuation date. It is this data that is used to determine how many units will be redeemed in a given year for current contracts. These future unit redemptions, along with program expenses, make up the program liabilities described in the second subsection.

In the second subsection, we show the expected value, as of the valuation date, of obligations for 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. To see how obligations differed from our expectations in the prior year, we include an actuarial gain/loss from Fiscal Year 2020 to 2021.

The third 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 (market value), along with the smoothed measure of assets of the program (actuarial value). The present value of the fund represents both assets currently on hand and the present value of monthly contract receivables. Similar to program obligations, we provide the actuarial gain/loss for assets over the prior fiscal year.

In the subsections, the obligations and assets combine to produce the program funded status and future cash flows. We show a history of the program's key metrics followed by our projections for the future under a closed program.



### PARTICIPANT DATA

Program obligations are based on the participant data supplied by GET staff. In this report, we also include impacts from the retroactive price reduction to the 2020-21 GET

enrollment unit price from \$133 to \$122. In September of 2021, WA529 staff completed the process of adjusting all accounts for those who purchased lump sum units and/or established new custom monthly accounts during this period.

- ❖ Purchasers of lump sum units received additional units.
- ❖ The payments of new custom monthly contracts were reduced.

WA529 staff provided us with data as of June 30, 2021, on these expected changes. Based on this data, we estimated the adjustments in our model. The estimates in this report may vary slightly from actual experience; however, we don't anticipate this variation will materially impact the results of the valuation. Please refer to the WA529 staff on the actual adjustments made.

Following, we provide a summary of all outstanding units, including the September adjustments, by the initial "use year" for the plan year ending June 30, 2021, along with a reconciliation of units from last year's valuation. The projected use year, provided by contract holders when an account is established, represents the first year the Student Beneficiary is expected to enter college and/or turn 18 years old.

Number of Units Outstanding by Use Year		
Use Year	Expected Unit Value	Units Starting to be Used
2021*	\$114	3,078,009
2022	117	818,165
2023	120	809,898
2024	123	795,315
2025	128	792,754
2026	134	753,703
2027	139	638,971
2028	144	550,002
2029	150	401,900
2030	156	341,985
2031	163	270,105
2032	169	226,320
2033	176	181,430
2034	183	158,953
2035	190	144,430
2036	198	138,537
2037	206	100,273
2038	214	72,380
2039	222	25,864
2040	231	436
2041	\$241	0

\*Includes contracts that already started using units.

Change in Number of Outstanding Units	
Number of Outstanding Units at June 30, 2020	10,289,070
<b>New Units Purchased</b>	550,062
<b>Units Redeemed<sup>1</sup></b>	(462,104)
<b>Units Refunded, Defaulted, or Downgraded<sup>2</sup></b>	(93,395)
<b>Units Rolled Over to Other 529 Plans<sup>3</sup></b>	(21,258)
<b>Other<sup>4</sup></b>	381
Unadjusted Number of Outstanding Units at June 30, 2021	10,262,756
<b>Additional Units Granted Under SB 5430<sup>5</sup></b>	36,674
Adjusted Number of Outstanding Units at June 30, 2021	10,299,430

<sup>1</sup> Includes adjustments for unused distributions in prior fiscal year.

<sup>2</sup> Includes total units in refunded account. Unit downgrades are performed upon customer request.

<sup>3</sup> Includes rollovers to DreamAhead and other states' 529 plans.

<sup>4</sup> Includes other, unexplained changes.

<sup>5</sup> Estimation based on preliminary information provided by GET staff.

## ACTUARIAL LIABILITIES

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 for all unredeemed units at June 30, 2021. The obligations are measured under a closed program and exclude tuition payments or administrative costs from new units purchased after June 30, 2021. Please see **Appendix A** for further details.

Present Value of Obligations	
<i>(Dollars in Millions)</i>	
Present Value of Unit Redemptions	\$1,062
Present Value of Administrative Expenses	30
<b>2021 Present Value of Obligations</b>	<b>\$1,092</b>
<b>2020 Present Value of Obligations</b>	<b>\$1,190</b>

WA529 staff provide the expected administrative expenses of the program and expected revenue from service-based fees under a closed-plan scenario. They represent the anticipated net expenses of the program for each year until all current outstanding units are redeemed based on our current assumptions. Service-based fees represent revenue from fees charged to participants for specific purposes, such as dishonored payments. We subtract this fee revenue from future expenses because our model does not include those future payment streams.

We then calculate the present value of those net expenses. In the following table, we outline the development of the present value of this obligation along with the underlying expense and fee revenue values.





Development of Expenses				
Fiscal Year	Administrative Expenses	Expected Fee Revenue	Net Expenses	PV of Net Expenses
2022	\$5,613,678	\$356,000	\$5,257,678	\$5,137,549
2023	3,333,225	266,175	3,067,050	2,861,072
2024	2,545,728	199,631	2,346,097	2,089,295
2025	2,069,290	149,723	1,919,566	1,631,935
2026	1,587,525	112,293	1,475,232	1,197,309
2027	1,624,394	84,219	1,540,175	1,193,334
2028	1,567,995	63,165	1,504,830	1,113,077
2029	1,608,741	47,373	1,561,368	1,102,526
2030	1,650,554	35,530	1,615,024	1,088,701
2031	1,596,824	26,648	1,570,177	1,010,472
2032	1,645,437	19,986	1,625,452	998,610
2033	1,681,142	14,989	1,666,153	977,198
2034	1,724,968	11,242	1,713,726	959,522
2035	1,769,944	8,431	1,761,512	941,554
2036	1,816,100	6,324	1,809,777	923,487
2037	1,870,469	4,743	1,865,726	908,865
2038	1,731,851	3,557	1,728,294	803,739
2039	1,777,234	2,668	1,774,567	787,836
2040	1,823,816	2,001	1,821,815	772,136
2041	1,871,627	1,000	1,870,627	756,872
2042	1,786,010	1,000	1,785,010	689,480
2043	1,564,618	1,000	1,563,618	576,578
2044	1,293,434	1,000	1,292,434	454,969
2045	1,317,848	1,000	1,316,848	442,542
2046	\$1,342,895	\$1,000	\$1,341,895	\$430,510
<b>PV of Expenses</b>				<b>\$29,849,168</b>

Note: PV means Present Value.

The following table demonstrates actuarial gains and losses for program obligations. 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. Please see the following section for the gains and losses for program assets.

Gain/(Loss) Analysis Change in Obligations by Source	
<b>2020 Present Value of Obligations</b>	<b>\$1,190</b>
<b>Changes in 2021</b>	
<b>Expected Change</b>	<b>(\$36)</b>
<b>Program Gains/Losses</b>	
Tuition Payments and Account Changes*	\$26
New Units Purchased or Contracted	67
Other	0
<b>Total Program Obligations Gains/Losses</b>	<b>\$94</b>
<b>Additional Changes**</b>	
SB 5430 Program Changes	\$4
Redemption Rate Assumption Change	3
Tuition Growth Assumption Change***	(163)
Update of Administrative Expenses	0
<b>Total Additional Changes Gains/Losses</b>	<b>(\$156)</b>
<b>Total Changes in 2021</b>	<b>(\$99)</b>
<b>2021 Present Value of Obligations</b>	<b>\$1,092</b>

*Note: Totals may not agree due to rounding.*

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

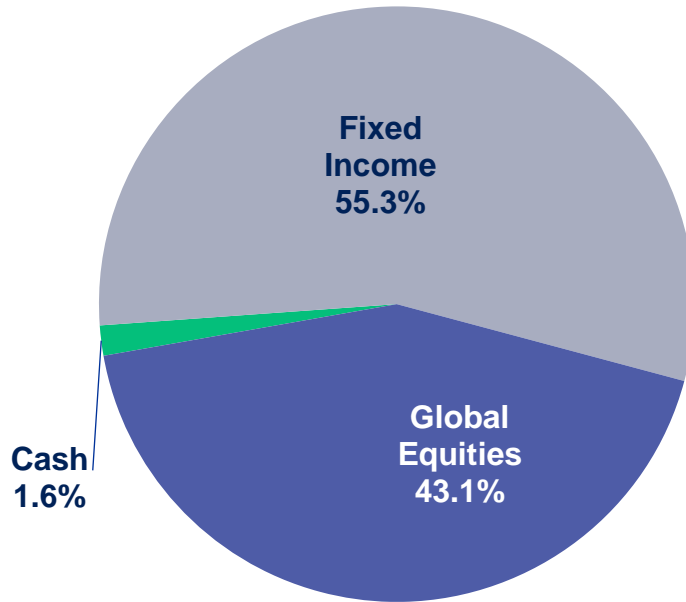
*\*\*Additional changes are listed in the order performed. A different order would produce the same total changes but the measured impact for each individual change could differ in both magnitude and direction.*

*\*\*\*Includes the annual update to the unit payout value.*

## PROGRAM ASSETS

The following chart shows how GET program assets were invested at June 30, 2021. In late 2019, WSIB adopted a new asset allocation. The target asset allocation was moved to 40 percent global equity and 60 percent fixed income (the percentages were reversed under the prior allocation). Under current investment policy, any allocation within 5 percent of the target for each asset class is permissible and the program is allowed to allocate up to 5 percent in cash with a long-term target of 0 percent. The following figures reflect the actual asset allocation at the valuation date.

2021 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<sup>1</sup>:** 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, which includes (1) the Market Value of Assets held by the WSIB, (2) the present value of the monthly contract receivables, and (3) the additional funds held in a state Treasury account. The Treasury account assets are available to pay program obligations, such as upcoming fall tuition unit disbursements or for other GET program purposes. We assume mid-valuation year timing on payments in and out of the fund for purposes of this valuation.

<sup>1</sup>As disclosed in their 2021 Capital Markets White Paper, WSIB uses the Intermediate Credit Fixed Income asset class for the GET trust fund. We refer to this asset class as simply Fixed Income throughout this report.

Market Fund Value	
<i>(Dollars in Millions)</i>	
Market Value of Assets at 6/30/2021	
Cash	\$28
Global Equities	736
Fixed Income	945
2021 WSIB Reported Assets	\$1,709
Additional Funds Held in State Treasury Account*	\$5
2021 Market Value of Assets	\$1,714
Present Value of Monthly Contracts	\$99
Total 2021 Fund Value	\$1,813

\*Additional funds available to pay program obligations such as upcoming tuition disbursements.

The next two tables show reconciliations from last year to this year for the Market Value of Assets and Present Value (PV) of Monthly Contracts.

Change in Market Value of Assets	
<i>(Dollars in Millions)</i>	
2020 Market Value of Assets	\$1,458
Changes in Net Asset Value	
Revenue	
Lump Sum Unit Purchases	\$54
Custom Monthly Unit Purchases	19
Investment Return	244
Other Revenue	1
<b>Total Revenue</b>	<b>\$318</b>
Disbursements	
Refunds	(\$8)
Redemptions	(51)
Other Disbursements	(7)
<b>Total Disbursements</b>	<b>(\$66)</b>
<b>Net Cash Flow</b>	<b>\$252</b>
2021 WSIB Reported Assets	\$1,709
Additional Funds Held in State Treasury Account*	\$5
2021 Market Value of Assets	\$1,714

\*Additional funds available to pay program obligations such as upcoming tuition disbursements.



Change in PV of Monthly Contract Receivables	
<i>(Dollars in Millions)</i>	
PV of Monthly Contracts at June 30, 2020	\$102
Changes in PV Monthly Contracts	
Actual Payments Received in 2021	(\$18)
Interest Adjustment	4
Account Conversions*	(7)
PV of Monthly Contracts for New Units in 2021	19
Other**	0
<b>Preliminary PV Receivables at June 30, 2021</b>	<b>\$101</b>
<b>Assumption Changes or Program Changes***</b>	<b>(2)</b>
<b>PV of Monthly Contracts at June 30, 2021</b>	<b>\$99</b>

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

\*\*Includes account downgrades, interest on advanced payments, and unexplained changes.

\*\*\*Change in PV Receivables under SB 5430.

Similar to the program obligations, we measure actuarial gains and losses for the program assets as illustrated in the following table. 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 Assets by Source	
<b>a) 2020 Market Value of Fund</b>	<b>\$1,559</b>
<b>Changes in 2021</b>	
<b>b) Expected Change</b>	<b>(\$17)</b>
<b>Program Assets Gains/Losses</b>	
<b>Distributions</b>	<b>\$25</b>
<b>Contributions</b>	
Existing Contracts	(1)
New Unit Sales	56
<b>Contract Receivables</b>	
Existing Contracts	(6)
New Unit Sales	19
<b>Investment Earnings</b>	<b>175</b>
<b>Other</b>	<b>0</b>
<b>c) Total Program Assets Gains/(Losses)</b>	<b>\$268</b>
<b>Additional Changes</b>	
Method Change*	\$5
Program Changes**	(2)
<b>d) Total Additional Changes</b>	<b>\$3</b>
<b>e) Total Change in 2021 (b + c + d)</b>	<b>\$254</b>
<b>f) 2021 Market Value of Fund (a + e)</b>	<b>\$1,813</b>

Note: Totals may not agree due to rounding.

\*Method change to include Treasury account with funds available to pay program obligations such as upcoming tuition disbursements.

\*\*SB 5430 reduces monthly payments due for contracts signed during the 2020-21 enrollment period.

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 receivables to get the actuarial fund value.

We use the market fund value (which is 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>			
<b>a) Market Value at 6/30/2021*</b>			\$1,714
Deferred Gains and (Losses)			
Program Year Ending	Years Remaining	Total Deferral	Remaining Deferral
6/30/2021	7	\$175	\$153
6/30/2020	6	29	22
6/30/2019	5	(13)	(8)
6/30/2018	4	20	10
6/30/2017	3	99	37
6/30/2016	2	(150)	(37)
6/30/2015	1	(123)	(15)
<b>b) Total Deferral</b>			\$161
<b>c) Market Value less Deferral 6/30/2021 (a - b)</b>			\$1,553
<b>d) 70% of Market Value of Assets</b>			1,200
<b>e) 130% of Market Value of Assets</b>			2,229
<b>f) Actuarial Value of Assets</b>			1,553
<b>g) PV of Receivables</b>			99
<b>h) Actuarial Fund Value (f + g)</b>			\$1,652

\*Includes approximately 5 million held in State Treasury account.

## 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.

2021 Funded Status	
<i>(Dollars in Millions)</i>	
Obligations	
<b>a) Present Value of Unit Redemptions</b>	\$1,062
<b>b) Present Value of Administrative Expenses</b>	\$30
<b>c) Present Value of Obligations (a + b)</b>	\$1,092
Market Fund Value	
<b>d) Assets</b>	\$1,714
<b>e) Present Value of Monthly Contract Receivables</b>	\$99
<b>f) Present Value of Fund (d + e)</b>	\$1,813
Calculation of Funded Status	
<b>g) Present Value of Fund (f)</b>	\$1,813
<b>h) Present Value of Obligations (c)</b>	\$1,092
<b>i) Ratio of Market Fund Value to Obligations (g / h)</b>	166.1%
<b>j) Reserve / (Deficit) (g - h)</b>	\$722

The Reserve/(Deficit) indicates the excess/shortfall of the fund assets on hand to cover the program’s expected obligations at the valuation date if all assumptions are realized. The reserve level can be interpreted similarly to the funded status.

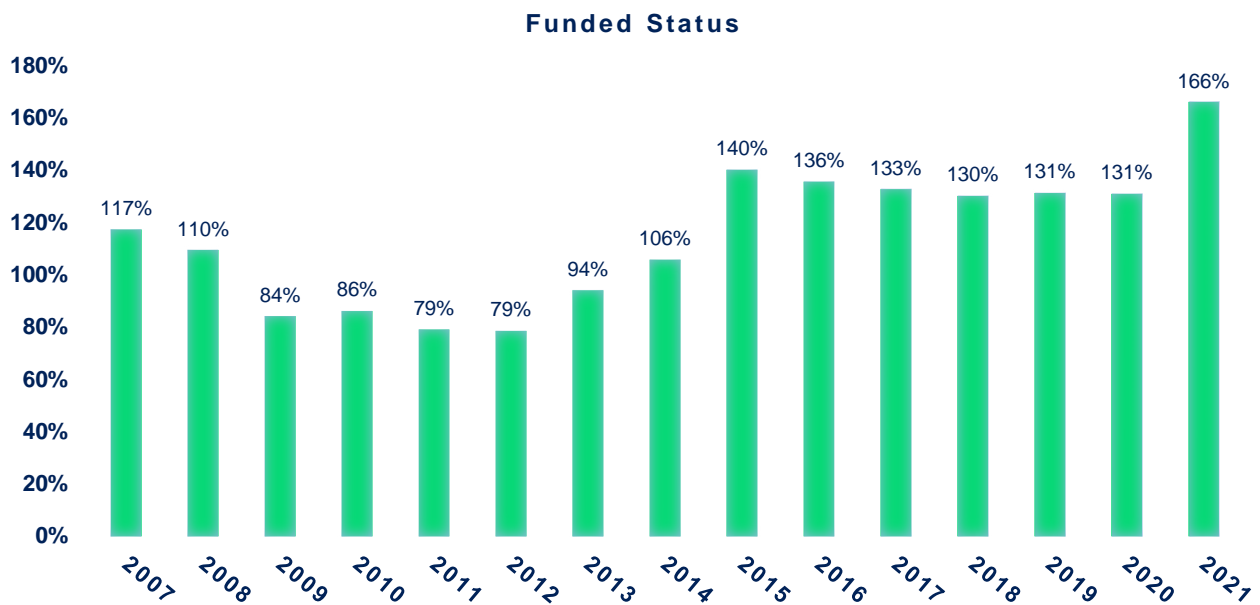
A self-sustaining program that collects all cash inflows up front, like the GET program, may want to aim for a long-term reserve of approximately 15 percent (or 115 percent funded status) in order to protect against unexpected adverse outcomes over the life of the program. The program may require a reserve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

The following table shows the impact to the funded status under each major change outlined in the **Executive Summary**.

2021 Funded Status Change	
<b>June 30, 2020, Funded Status</b>	<b>131%</b>
Contract Data Changes	1%
SB 5430	(1%)
New Assumptions	19%
Fiscal Year 2021 Actual Investment Returns	16%
Other*	(1%)
<b>June 30, 2021, Funded Status</b>	<b>166%</b>

*\*Includes updates to administrative expenses.*

The following chart demonstrates the program’s funded status history over the past 15 years. A full history of the program’s funded status can be found in **Appendix B**.



**PROGRAM PROJECTIONS**

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

Fiscal Year	EOY	EOY	EOY	EOY	EOY	EOY	EOY	EOY
Ending June 30	Funded Status	Unit Value <sup>1</sup>	Number of Units Used	Obligation Value	EOY Market Fund Value	EOY MVA	PV of Receivables	Net Cash Flow
2021 <sup>2</sup>	166%	N/A	N/A	\$1,092	\$1,813	N/A	N/A	N/A
2022	171%	114	686,281	1,058	1,814	1,729	85	14
2023	179%	117	807,600	1,008	1,800	1,727	73	(1)
2024	188%	120	860,408	948	1,777	1,716	61	(11)
2025	199%	123	906,871	876	1,745	1,694	51	(22)
2026	215%	128	956,254	791	1,701	1,658	43	(36)
2027	235%	134	892,250	705	1,658	1,623	35	(35)
2028	259%	139	773,234	627	1,625	1,597	28	(26)
2029	291%	144	729,828	547	1,593	1,571	22	(26)
2030	334%	150	665,313	469	1,565	1,547	17	(23)
2031	389%	156	580,871	397	1,544	1,531	13	(16)
2032	461%	163	486,799	333	1,535	1,526	10	(6)
2033	553%	169	397,231	278	1,538	1,531	7	5
2034	668%	176	319,752	232	1,551	1,547	4	16
2035	816%	183	258,923	193	1,575	1,572	3	25
2036	*	190	215,063	158	1,606	1,605	1	32
2037	*	198	182,513	127	1,643	1,643	1	38
2038	*	206	157,131	98	1,687	1,687	0	44
2039	*	214	133,641	72	1,736	1,736	0	49
2040	*	222	109,454	49	1,791	1,791	0	56
2041	*	231	81,705	30	1,855	1,855	0	64
2042	*	241	53,422	16	1,928	1,928	0	73
2043	*	250	29,671	8	2,011	2,011	0	82
2044	*	260	12,498	3	2,102	2,102	0	91
2045	*	271	2,673	1	2,199	2,199	0	98
2046	*	\$279	44	\$0	\$2,302	\$2,302	\$0	\$103

<sup>1</sup> Shown in Dollars (not in Millions).

<sup>2</sup> Please see **Participant Data** and **Program Assets** for actual experience in Fiscal Year 2021.

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

The net cash flows used in the preceding table are based on expected inflows and outflows as illustrated in the next table.



Projection of Current Contracts Only (If All Assumptions Are Realized)						
<i>(Dollars in Millions)</i>						
		Cash Inflows			Cash Outflows	
Fiscal Year	Net Cash	Monthly	Investment	State		
Ending	Flow	Contracts	Return	Contributions	Unit Use	Expense
June 30						
2022	\$14	\$18	\$80	\$0	(\$78)	(\$5)
2023	(1)	16	80	0	(95)	(3)
2024	(11)	14	80	0	(103)	(2)
2025	(22)	13	79	0	(112)	(2)
2026	(36)	11	78	0	(123)	(1)
2027	(35)	9	76	0	(119)	(2)
2028	(26)	8	75	0	(107)	(2)
2029	(26)	7	74	0	(105)	(2)
2030	(23)	6	72	0	(100)	(2)
2031	(16)	5	71	0	(91)	(2)
2032	(6)	4	71	0	(79)	(2)
2033	5	3	71	0	(67)	(2)
2034	16	3	71	0	(56)	(2)
2035	25	2	72	0	(47)	(2)
2036	32	1	74	0	(41)	(2)
2037	38	1	75	0	(36)	(2)
2038	44	0	77	0	(32)	(2)
2039	49	0	79	0	(29)	(2)
2040	56	0	82	0	(24)	(2)
2041	64	0	85	0	(19)	(2)
2042	73	0	88	0	(13)	(2)
2043	82	0	91	0	(7)	(2)
2044	91	0	95	0	(3)	(1)
2045	98	0	100	0	(1)	(1)
2046	\$103	\$0	\$104	\$0	(\$0)	(\$1)

We advise readers to exercise caution when using, distributing, or relying on this 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. Actual experience may vary.

A large expected reserve develops under this projection because we assume the current reserve of \$722 million will continue to grow with the long-term expected 4.75 percent rate of investment return 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.



## 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 assumed rates 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, 2021, best estimate funded status using the actuarial fund value.

### CLOSED PROGRAM SCENARIO SENSITIVITY

The following table shows the best estimate results assuming no units are purchased in the future. This scenario is consistent with our best estimate results shown elsewhere in the report.

Sensitivity of Results to Key Assumptions							
<i>(Dollars in Millions)</i>	+1% Tuition	Best Estimate	-1% Tuition	-2% Return	-1% Return	Best Estimate	+1% Return
<b>PV of Fund</b>	\$1,813	\$1,813	\$1,813	\$1,822	\$1,817	\$1,813	\$1,809
<b>PV of Obligations</b>	\$1,159	\$1,092	\$1,030	\$1,250	\$1,166	\$1,092	\$1,024
<b>Reserve/(Deficit)</b>	\$655	\$722	\$783	\$572	\$651	\$722	\$785
<b>2021 Funded Status</b>	157%	166%	176%	146%	156%	166%	177%

Note: PV means Present Value.

### CLOSED PROGRAM CURRENT LAW SENSITIVITY

Chapter 36, Laws of 2015, 3rd Special Legislative Session, established a policy to limit resident, undergraduate annual tuition growth to no more than the average annual percentage change in the median hourly wage for Washington over the previous fourteen years. For our best estimate Tuition Growth assumption, we assume continuation of this policy over a two biennial period consistent with the state budget. Beyond this period, we assume our long-term tuition growth rate. For more information, please see the *2021 GET Experience Study*.

If future Legislatures continue this policy indefinitely, we would expect future tuition growth rates closer to 2-4 percent per year as outlined in the following table.



Tuition Growth Assumption		
School Year	Current Law	Best Estimate
2021-22	2.7%	2.7%
2022-23	2.7%	2.7%
2023-24	2.7%	2.7%
2024-25	2.7%	2.7%
2025-26	2.8%	4.0%
2026-27	2.8%	4.0%
2027-28	3.0%	4.0%
2028-29	3.1%	4.0%
2029-30	3.3%	4.0%
2030-31	3.3%	4.0%
2031-32	3.3%	4.0%
2032-33	3.3%	4.0%
2033-34	3.2%	4.0%
2034-35	3.1%	4.0%
2035-36+	2.8%	4.0%

Under the indefinite current law scenario, the funded status, measured at June 30, 2021, would rise from 166 percent to 172 percent and the reserve would increase from \$722 million to \$759 million.

#### ACTUARIAL FUND VALUE SENSITIVITY

The following table compares the best estimate funded status calculated under the market fund value to the funded status calculated under the actuarial fund value.

Sensitivity to Market Fund Value		
(Dollars in Millions)	Best Estimate	Actuarial Fund Value
PV of Fund	\$1,813	\$1,652
PV of Obligations	\$1,092	\$1,092
Reserve/(Deficit)	\$722	\$561
Funded Status	166%	151%

Note: PV means Present Value.





# Appendices

## Appendix A ★ Assumptions, Methods, and Data

The assumptions used in this report can be divided into two broad categories – economic and behavioral. We discuss the assumptions used in this valuation throughout the next two subsections. However, for more detailed and supporting information on these assumptions, please see the *2021 GET Experience Study*.

### 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.

Expected investment returns are based on WSIB’s target asset allocation, their 2021 CMAs and simulated returns, our professional judgment, along with our consideration for (1) the time-horizon of the program obligations and new unit sales, and (2) the difference in historical and target asset allocations.

We relied on the CMAs provided by WSIB and have reviewed them for reasonableness. We assumed the current 40 percent global equity/60 percent fixed income target portfolio will remain unchanged throughout the projection period.

The assumed rate of investment returns is used as the discount rate to calculate the expected present value of program payments, expenses, and receivables. It’s also used to calculate the expected future investment returns in our closed program projections. For additional information on the program’s assets and our return assumption, see the **Best Estimate Results** section and **Appendix B**.

Key Economic Assumptions	
Investment Returns	
All Years	4.75%
Tuition Growth (Excludes Differential Tuition)	
2021-25	2.7%
2025-26+	4.0%

We updated our tuition growth model with the *2021 GET Experience Study*. Based on the results of this study, we decreased our long-term Tuition Growth assumption from 5.00 to 4.00 percent. We also developed a new framework for enacted and expected tuition growth rates consistent with current law tuition policy to help assist with setting annual Tuition Growth assumptions. Under this framework, we set the first three to four years of assumed tuition growth rates (depending on the biennial budget cycle) consistent with the enacted budget and the current tuition policy. Beyond that period, we set rates that consist of our long-term assumed growth rate plus a potential adjustment for past differences between higher education inflationary costs and historical higher education budget growth. We determined no adjustment on the long-term Tuition Growth assumption was needed for this actuarial valuation report.



New Tuition Growth Assumption Format	
FY	Tuition Growth Assumption
Year 1	Current Tuition Policy – Enacted Rates
Year 2	Current Tuition Policy – Enacted Rates
Year 3	Current Tuition Policy – Expected Rates
Year 4	Current Tuition Policy – Expected Rates
Year 5+	Long-Term Tuition Growth with Adjustments

When setting the long-term Tuition Growth assumption, we explicitly separated the rates into four distinct building blocks.

- 1. National Inflation Forecast** — This component is based on national inflation forecasts. Generally, national inflation forecasts suggested an expected rate between 2.00 percent and 2.50 percent at the time of our study.
- 2. Regional Inflation Adjustment** — The GET unit payout value is based on the highest annual resident undergraduate tuition at a Washington State public university or college. We therefore include a regional adjustment to the underlying expected rate of national inflation. We based this adjustment on the difference between historical national inflation (CPI-U) and historical regional inflation (CPI-U STB) indices produced by the Bureau of Labor Statistics, which are studied on a calendar year basis.
- 3. Higher Education Inflation Adjustment** — In addition to a regional inflation adjustment, higher education institutions experience costs at a different rate than the more generalized economy. To account for this difference, we include a higher education adjustment based on the difference between historical national inflation (CPI-U) and historical national education inflation (HEPI) produced by Commonfund, which are studied on a fiscal year basis.
- 4. Higher Education Services Utilization** — Utilization represents the rate at which higher education services are used. To estimate this building block, we observed its share of historical cost of instruction growth and considered our expectations for future growth. Under that historical analysis, utilization growth contributes between approximately 1.25 and 1.75 percent to the total cost of instruction growth rate during the observation period. We also reviewed projected University of Washington student population growth provided by the university, and general state population growth of college-age state residents provided by the Office of Financial Management.

Long-Term Tuition Growth Building Blocks		
Price Inflation		
<b>Block (i)</b>	National Inflation Forecast	2.25%
<b>Block (ii)</b>	Regional Inflation Adjustment	0.40%
<b>Block (iii)</b>	Higher Education Inflation Adjustment	0.60%
Utilization		
<b>Block (iv)</b>	Higher Education Services Utilization	0.75%
<b>New Long-Term Tuition Growth Assumption</b>		<b>4.00%</b>

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.

## BEHAVIORAL ASSUMPTIONS

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

**Rate of Redemption** — The following table shows what percent of a contract holder’s total units we expect will be used upon reaching college (or their “use year”). When measuring program obligations, we assume the use year will be half a year later than reported by the account holder.

Redemption Rate	
All Years	20%

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 Return and Tuition Growth assumptions 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 unredeemed units and asset values in the GET program by estimating the future tuition payments (cash outflow from unit redemptions), 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 (based on the reported “use year”).
- ❖ What tuition will be in future years.
- ❖ What administrative expenses will be over time.
- ❖ The payment amount and payments due for each monthly contract.

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 an annual growth rate of 4.75 percent, which means \$1 today is worth \$1.0475 next year due to investment earnings. Discounting moves the opposite way and states that \$1.0475 a year from now will be worth \$1 today. Discounting all the cash flows to one common year allows for a commensurable comparison of all cash flows.



These calculations were performed using ProVal® software developed by Winklevoss Technologies. This software model was primarily created for use by actuaries when performing valuations and projections of pension and retiree medical plans. We recognize that the structure of a pre-paid tuition program may not be consistent with the model’s primary intent however based on our review we believe the software produces reasonable output for the purposes of this valuation. We are not aware of any known weaknesses or limitations of the model that have a material impact on the results.

## 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 reviewed the data and 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%	2002-03	16.0%
1983-84	11.2%	2003-04	7.0%
1984-85	0.0%	2004-05	6.6%
1985-86	22.7%	2005-06	6.8%
1986-87	0.0%	2006-07	6.9%
1987-88	7.9%	2007-08	6.8%
1988-89	3.8%	2008-09	6.8%
1989-90	1.7%	2009-10	13.1%
1990-91	6.9%	2010-11	13.1%
1991-92	11.5%	2011-12	19.0%
1992-93	3.4%	2012-13	15.2%
1993-94	12.4%	2013-14	0.0%
1994-95	14.8%	2014-15	0.0%
1995-96	3.9%	2015-16	(5.0%)
1996-97	4.0%	2016-17	(9.1%)
1997-98	3.9%	2017-18	2.1%
1998-99	4.0%	2018-19	2.1%
1999-00	3.7%	2019-20	2.3%
2000-01	3.4%	2020-21	2.4%
2001-02	7.1%	2021-22	2.7%

Historical Tuition Growth		
Time Period	Average	Standard Deviation
5 Years	2.3%	0.3%
10 Years	1.1%	6.2%
15-Years	4.5%	7.7%
20 Years	5.5%	7.1%
39 Years	6.1%	6.3%



## Appendix B ★ Assets

The following table provides information on the types of asset investments, or asset classes, and WSIB 2021 CMAs. For additional information on the program’s assets, see the **Best Estimate Results** section.

Capital Market Assumptions			
Asset	Return	Standard Deviation	Weight
Fixed Income	3.5%	5.7%	60%
Global Equities	8.1%	19.0%	40%
Portfolio	5.3%	9.2%	100%
Correlation	Fixed Income	Global Equities	
Fixed Income	1.0		
Global Equities	0.3	1.0	

The average 5.34 percent portfolio return is a one-year arithmetic return. When compounded over a 10- and 15-year period, the median geometric return is 4.90 and 4.87 percent, respectively. This may be compared to the average time horizon of remaining payments for a new unit sale of roughly 16 years or a current outstanding unit of roughly 7 years.

For this valuation, we reviewed WSIB’s 2021 CMAs and corresponding simulated returns, and retained our investment return assumption of 4.75 percent.

The following table shows the historical rates of investment return and program funded status for the GET trust fund since the inception of the program.





Historical Information		
Fiscal Year	Investment Return	Funded Status
1999	4.96%*	110.1%
2000	10.25%	113.4%
2001	(1.63%)	104.9%
2002	(2.79%)	89.6%
2003	7.56%	98.4%
2004	16.00%	104.5%
2005	10.07%	108.1%
2006	8.94%	108.8%
2007	14.77%	117.4%
2008	(0.70%)	109.5%
2009	(16.02%)	84.2%
2010	12.68%	86.2%
2011	20.46%	79.1%
2012	0.07%	78.5%
2013	9.59%	94.1%
2014	16.36%	105.8%
2015	0.83%	140.1%
2016	0.61%	135.6%
2017	10.92%	132.8%
2018	6.35%	130.2%
2019	5.29%	131.3%
2020	7.40%	131.0%
2021	16.84%	166.1%

\*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
2019-20	121	505,222
2020-21	\$133	550,062

\*Price includes amortization component that was subsequently refunded.

\*\*Restated number of units sold.

\*\*\*Unit sales suspended.

Number of Units Outstanding by Use Year			
Use Year	Expected Unit Value	Units Starting to be Used	Contracts Starting to be Used
2021*	\$114	3,078,009	22,154
2022	117	818,165	4,164
2023	120	809,898	4,238
2024	123	795,315	4,297
2025	128	792,754	4,316
2026	134	753,703	4,288
2027	139	638,971	3,772
2028	144	550,002	3,465
2029	150	401,900	2,772
2030	156	341,985	2,585
2031	163	270,105	2,237
2032	169	226,320	1,913
2033	176	181,430	1,571
2034	183	158,953	1,384
2035	190	144,430	1,277
2036	198	138,537	1,292
2037	206	100,273	1,026
2038	214	72,380	775
2039	222	25,864	293
2040	231	436	1
2041	\$241	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 from the prior year’s valuation report 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. 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 2021 meeting, adopted a new unit price of \$114.01 for sales during the 2021-22 enrollment period. They also adopted a retroactive price decrease to \$114.01 for account holders who made lump sum unit purchases or entered custom monthly contracts during the 2019-20 and 2020-21 enrollment period. The impacts of this retroactive price change are not reflected in this report and will be included as part of the 2022 GAVR.

For further details, including sensitivity, best estimate range assumptions, and risk analysis, please see the presentation titled, 2021-22 GET Unit Price-Setting, in the WA529 September meeting material located on the [WSAC website](#).

GET Unit Price Information			
Unit Price	2021-22 Enrollment		2020-21 Enrollment
	Best Estimate Range*	Best Estimate	Best Estimate
<b>Expected Cost</b>		\$96.56	\$116.91
<b>Expenses</b>		3.03	3.03
<b>Reserve</b>		14.94	17.99
<b>Amortization</b>		N/A	N/A
<b>Total Unit Price</b>	<b>\$101.00 – \$129.00</b>	<b>\$114.00</b>	<b>\$137.00</b>
<b>Unit Price Adopted**</b>		<b>\$114.01</b>	<b>\$133.00</b>

Note: Totals may not agree due to rounding.

\*Best estimate range based on assumptions disclosed in the September 2021 WA529 Committee meeting materials.

\*\*Unit price adopted by the WA529 Committee.

To determine the best estimate unit price and range, we estimate the future payout value of a single unit based on assumptions for future tuition growth and holding periods for the unit (the duration between purchase and redemption). We calculate the present value of this unit by discounting the future payout value using the expected rate of investment return.



This calculation is performed using economic assumptions for tuition growth and investment return matching those used in the valuation. Please see **Appendix A** for more information.

The holding periods for the unit are based on demographic assumptions about new enrollments. We use the New Unit Sales Profile outlined in the following table to estimate the present value cost of future unit payouts associated with the sale of a single unit. Please see the *2021 GET Experience Study* for further details.

New Unit Sales Profile	
Length in Program (Years)	Percent of Single Unit
2	1.0%
3	2.0%
4	2.0%
5	4.0%
6	4.0%
7	6.0%
8	6.0%
9	6.0%
10	6.0%
11	6.0%
12	6.0%
13	7.0%
14	7.0%
15	7.0%
16	7.0%
17	7.0%
18	8.0%
19	8.0%
20	0.0%
<b>Total</b>	<b>100.0%</b>



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**2021**

**ACTUARIAL  
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**NOVEMBER 2021**