

# 2022 GET Unit Price Setting

Presentation to: WA529 Committee

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Office of the State Actuary  
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September 14, 2022

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## Today's Presentation

### Purpose

- Updated actuarial analysis to assist the Committee in adopting a unit price for the upcoming enrollment period (2022-23)

### Current Program Status

- Key changes from 2021 results
- Estimated funded status and reserves at June 30, 2022
- Results of *June 30, 2022, GET Actuarial Valuation Report* may vary

### Price-Setting Information

- Key considerations for 2022 Analysis
- "Price Cap" conditions under 2021 Legislation
- 2022-23 enrollment best estimate unit price and range

### Risk Analysis

- Key pricing metrics under various stress tests

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## Current Program Status—3 Key Changes from 2021 Analysis

1. 2021-22 unit sales and distributions
  2. Committee action
    - Retroactive unit price adjustment (September 2021)
    - Contribution Guarantee (May 2022)
  3. Actual investment return of (11.45%) for FY 2022
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- No change to the assumed rate of investment return or tuition growth assumption

Key Assumptions		
	2023-25	2025+
Tuition Growth	2.70%	4.00%
Investment Return	4.75%	4.75%

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## Program Status at June 30, 2022

Funded Status Summary				
<i>(Dollars in Millions)</i>	2021 GAVR	Financial Reporting Roll-Forward 2022 Data		
		Update	Step 2	Step 3
<b>Present Value of Future Obligations</b>	\$1,092	\$1,134		
(A) Market Value of Assets (MVA) at June 30	\$1,714	\$1,799		
(B) Present Value of Receivables	\$99	\$99		
<b>Present Value of Fund (A) + (B)</b>	\$1,813	\$1,898		
<b>Funded Status</b>	166%	167%		
<b>Reserve/(Deficit)</b>	\$722	\$764		

### Step 1 – New Data

- Project one year forward with new unit sales and distributions for FY 2022
- Number of units outstanding remained relatively stable at 10.4 million
- Approximately 735,000 units purchased or contracted during 2021-22 enrollment cycle

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## Program Status at June 30, 2022

Funded Status Summary				
<i>(Dollars in Millions)</i>	2021 GAVR	Financial Reporting Roll-Forward		
		2022 Data Update	Committee Action	Step 3
<b>Present Value of Future Obligations</b>	\$1,092	\$1,134	\$1,151	
(A) Market Value of Assets (MVA) at June 30	\$1,714	\$1,799	\$1,799	
(B) Present Value of Receivables	\$99	\$99	\$96	
<b>Present Value of Fund (A) + (B)</b>	\$1,813	\$1,898	\$1,896	
<b>Funded Status</b>	166%	167%	165%	
<b>Reserve/(Deficit)</b>	\$722	\$764	\$744	

### Step 2 – WA529 Committee Action

- Retroactive price change for 2019-20 and 2020-21 purchasers
- Guaranteed payout of purchaser contributions for eligible account holders

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## Program Status at June 30, 2022

Funded Status Summary				
<i>(Dollars in Millions)</i>	2021 GAVR	Financial Reporting Roll-Forward		
		2022 Data Update	Committee Action	2022 MVA
<b>Present Value of Future Obligations</b>	\$1,092	\$1,134	\$1,151	\$1,151
(A) Market Value of Assets (MVA) at June 30	\$1,714	\$1,799	\$1,799	\$1,524
(B) Present Value of Receivables	\$99	\$99	\$96	\$96
<b>Present Value of Fund (A) + (B)</b>	\$1,813	\$1,898	\$1,896	\$1,620
<b>Funded Status</b>	166%	167%	165%	141%
<b>Reserve/(Deficit)</b>	\$722	\$764	\$744	\$469

### Step 3 – 2022 MVA (Market Value of Assets)

- Update the MVA to reflect actual returns for FY 2022
- Assumed investment returns = 4.75%
- Actual investment returns = -11.45%

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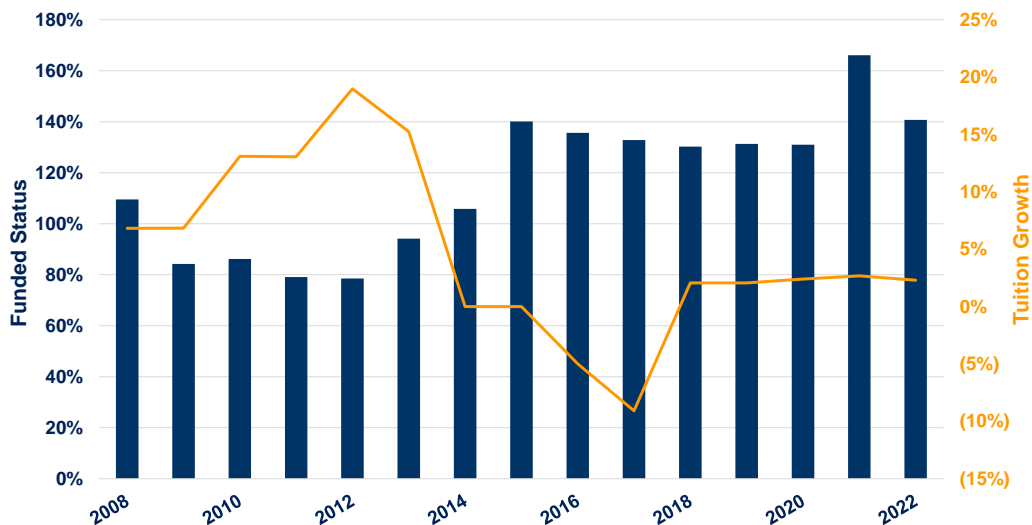
## Program Status

Funded Status Summary				
<i>(Dollars in Millions)</i>	Market Value of Assets		Actuarial Value of Assets	
	2021	2022	2021	2022
Present Value of Future Obligations	\$1,092	\$1,151	\$1,092	\$1,151
Present Value of Fund	\$1,813	\$1,620	\$1,652	\$1,704
<b>Funded Status</b>	166%	141%	151%	148%
<b>Reserve/(Deficit)</b>	\$722	\$469	\$561	\$553

- Funded Status at June 30, 2022, is 148% using the actuarial (or smoothed) value of assets instead of market value
- An 8-year asset smoothing method was used to determine the actuarial value of assets

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## Funded Status and Tuition Growth History



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## Components of Unit Price

### Expected Cost

- Covers the present value of the expected cost of future tuition and applicable state-mandated fees

### Expenses

- Contributes to the payment of administrative expenses

### Reserve

- Covers unexpected future costs such as higher than expected tuition growth or lower than expected investment returns
- 15% reserve level included in best estimate unit price

### Amortization

- An optional component that covers unexpected past costs from significant program or policy changes, as well as adverse demographic and economic experience
- Not included in current unit pricing

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## Price-Setting Information—Key Considerations for 2022 Analysis

- Inflation volatility mitigated through current tuition policy
  - Tuition growth limited to growth in 14-year average of Washington State median hourly wage
- Price cap conditions met
  - Funded status as of June 30, 2022, is above 120%
  - Tuition policy remains unchanged

GET Unit Price Information	
Price Cap Calculation	
2022-23 Payout Value	\$116.63
<u>+10 Percent</u>	11.66
2022-23 Price Cap	\$128.00

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## Unit Price Information

GET Unit Price Information		
2022-23 Enrollment		
Unit Price	Best Estimate	Best Estimate Range
Expected Cost	\$100.02	
Expenses	3.04	
Reserve	15.46	
Amortization	N/A	
<b>Total Unit Price</b>	<b>\$118</b>	<b>\$104 – \$134</b>
Premium	1.2%	(10.8%) - 14.9%

*Note: Totals are truncated and may not agree. Premium represents the increase of the Total Unit Price over today's unit payout value, \$116.63, expressed as percentage.*

- The 2022-23 price cap is \$128
- Last year the Committee adopted a unit price equal to the payout value of \$114.01

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## Risk Analysis for Unit Pricing

- The program's ongoing success depends on maintaining a delicate balance between risk and affordability
  - "Risk" that the state will need to contribute to the program
  - "Affordability" of future GET units to be purchased by customers
- The Committee manages risk when selling units through the reserve component in the unit price
  - The larger the reserve, the lower the risk to the state; but
  - The higher the reserve, the less affordable the unit price and vice versa
- As with any financial security program, risks can change over time and some risks may not materialize
  - When applicable, the Price Cap can lower the reserve component of the unit price and rely on current program reserves to manage risk

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## Summary of Risk Analysis for Unit Pricing

### Risk Analysis

- We performed scenario-based risk analysis to determine the reasonableness of a 15% reserve policy
- We recommend the Committee continue to monitor and evaluate the program's risks/reserve policy as part of future unit price setting

### Risk Scenarios

- We project the assets and liabilities of a single example unit sale under four scenarios
  1. Best estimate assumptions
  2. Lower than assumed investment returns
  3. Higher than assumed tuition growth
  4. A combination of scenario 2 and 3
- We also show the estimated impact to the June 30, 2022, plan funded status
- Please see the Appendix for details on the assumptions and methods used in this risk analysis

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## Best Estimate Results

- Approximate results if future experience matches expectations

- Includes 15% reserve component

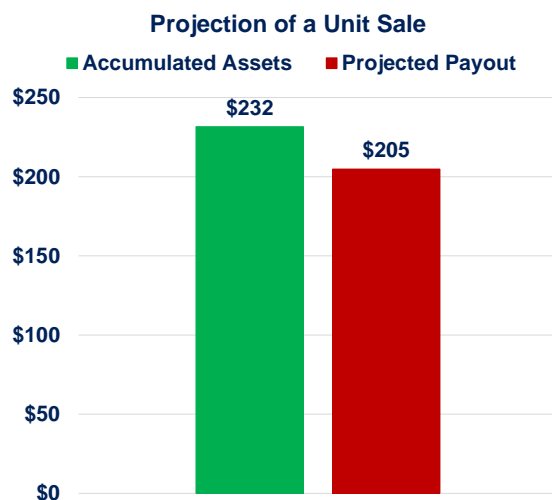
Tuition Growth Assumption by School Year	
2023-25	2.7%
2025+	4.0%

Investment Return Assumption	
	4.75%

Funded Status Estimate June 30, 2022	
	141%



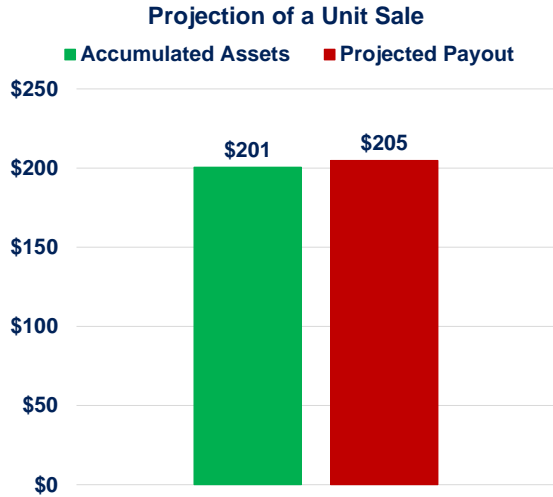
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## Risk Scenario—Investment Returns 1% Lower than Expected

Investment Return Assumption	
Best Estimate	Risk Scenario
4.75%	3.75%

Funded Status Estimate June 30, 2022	
Best Estimate	Risk Scenario
141%	132%

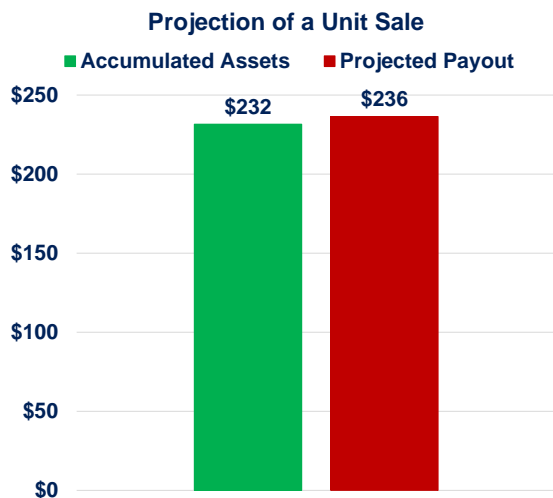
- We also reviewed other low-return scenarios



## Risk Scenario—Tuition Growth 1% Higher than Expected

Tuition Growth Assumption by School Year		
	Best Estimate	Risk Scenario
2023-25	2.7%	3.7%
2025+	4.0%	5.0%

Funded Status Estimate June 30, 2022	
Best Estimate	Risk Scenario
141%	133%



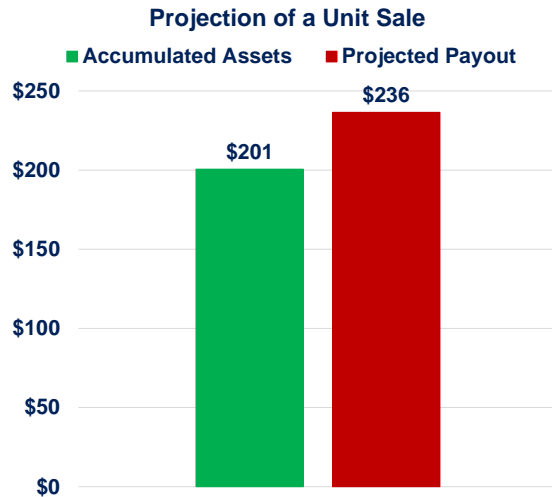


## Risk Scenario—Investment Returns 1% Lower than Expected and Tuition Growth 1% Higher than Expected

Tuition Growth Assumption by School Year		
	Best Estimate	Risk Scenario
2023-25	2.7%	3.7%
2025+	4.0%	5.0%

Investment Return Assumption	
Best Estimate	Risk Scenario
4.75%	3.75%

Funded Status Estimate June 30, 2022	
Best Estimate	Risk Scenario
141%	124%



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## Price-Setting Considerations

- The responsibility to adopt a unit price rests solely with the Committee, subject to the requirements of the Price Cap
- In adopting a unit price, the Committee considers many policy issues; including, but not limited to, the management of program risks
- To assist the Committee in adopting an appropriate unit price, we developed a best estimate range for the unit price that allows the Committee members to balance policy issues
- We consider any price within the best estimate range to be reasonable from an actuarial perspective

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## Summary of Results

### Current Program Status

- Funded status of 141% and reserves of \$469 million at June 30, 2022
- 25% funded status reduction since 2021 primarily due to (11.45%) investment return during FY 2022
- Based on a roll-forward from June 30, 2021

### Price-Setting Information

- Best estimate unit price of \$118 with a range of \$104 to \$134 for next enrollment period
- Current law caps the unit price at \$128
- Payout value of \$116.63 for current academic school year
- Unit price of \$114.01 adopted for last enrollment period

### Risk Analysis

- Current 15% reserve policy remains reasonable
- A lower reserve policy could also be reasonable if you consider current funded status

## Questions?



**Questions? Please Contact: The Office of the State Actuary**  
**[leg.wa.gov/OSA](http://leg.wa.gov/OSA); [state.actuary@leg.wa.gov](mailto:state.actuary@leg.wa.gov)**  
**360-786-6140, PO Box 40914, Olympia, WA 98504**  
**Luke Masselink and Sarah Baker**

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**Thank You**



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*"Supporting financial security for generations."*

**September 14, 2022**

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## Appendix

- Historical Unit Price and Premiums
- Tuition Growth and Return Assumptions for Best Estimate Range
- Current Program Status Disclosures
- Data We Used
- Assumptions We Used
- Methods We Used
- Actuarial Certification

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## Historical Unit Price and Premiums

Historical Unit Information				
Enrollment Year	Adopted Unit Price	Payout Value	Premium	Units Sold
1998-99	\$35	\$33.96	3%	1,374,095
1999-00	\$38	\$35.21	8%	615,327
2000-01	\$41	\$36.41	13%	523,702
2001-02	\$42	\$38.98	8%	2,463,500
2002-03	\$52	\$45.20	15%	2,099,531
2003-04	\$57	\$48.36	18%	1,896,635
2004-05	\$61	\$51.54	18%	2,108,360
2005-06	\$66	\$55.06	20%	2,146,191
2006-07	\$70	\$58.88	19%	2,339,431
2007-08	\$74	\$62.90	18%	2,102,305
2008-09	\$76	\$67.20	13%	3,177,699
2009-10	\$101	\$76.00	33%	2,624,367
2010-11	\$117	\$85.92	36%	2,697,696
2011-12	\$163	\$102.23	59%	1,503,962
2012-13	\$172	\$117.82	46%	1,038,773
2013-14	\$172	\$117.82	46%	741,701
2014-15	\$172	\$117.82	46%	618,367
2015-16	-	\$111.93	N/A	-
2016-17	-	\$101.76	N/A	-
2017-18	\$113	\$103.86	9%	770,665
2018-19	\$113	\$106.01	7%	639,646
2019-20	\$121	\$108.44	12%	505,222
2020-21	\$133	\$111.03	20%	550,062
2021-22	\$114	\$114.01	0%	735,322

*Note: Price and premium displayed are before any refunded amortization component or retroactive price adjustments.*

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## Tuition Growth and Return Assumptions for Best Estimate Range

Tuition Growth Assumptions		
	2023-25	2025+
Low Price Range	2.7%	3.5%
Best Estimate	2.7%	4.0%
High Price Range	2.7%	4.5%

Investment Return Assumptions	
	All Years
Low Price Range	5.25%
Best Estimate	4.75%
High Price Range	4.25%

- To develop the best estimate range, we varied both the assumed rate of investment return and tuition growth rates

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## Current Program Status Disclosures

- Current program status in this presentation is based on a roll-forward of the results of the [June 30, 2021, GET Actuarial Valuation Report](#) (GAVR)
- See our letter from August 19, 2022, for supporting information on the data, assumptions, and methods used in this presentation for the current status of the program
- 2022 roll-forward results may vary from the 2022 GAVR available in November

## Data We Used

- Price setting and Risk analysis
  - To determine the expense component of the unit price, we relied on projected program expenses and fee revenue provided by program staff as documented in the 2021 GAVR
  - We reviewed this data and found it reasonable for purposes of this analysis
  - Program staff provided the current payout value and we relied on that information to prepare the price setting and risk analysis
  - No other data was required to perform the price setting
- Current program status and funded status measurements
  - We used the same data as disclosed in our letter from August 19, 2022

## Assumptions We Used

- Price-setting analysis
  - To develop the best estimate unit price and range, we relied on the key assumptions disclosed in this presentation
  - We used the new unit sales profile and redemption rate assumption disclosed in the [2021 GET Experience Study](#) to determine the expected duration between unit purchase and ultimate redemption of the unit
  - All other assumptions are consistent with those disclosed in the 2021 GAVR
- We excluded the potential impacts of differential tuition policy from our analysis
- Risk analysis
  - For each risk scenario, we varied our assumptions from the best estimate assumptions to produce different accumulated assets and projected payout values from our best estimate
  - The assumptions are disclosed in this presentation
  - To determine funded status measurements, we used the same assumptions as disclosed in our letter from August 19, 2022, unless otherwise noted in this presentation

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## Methods We Used

- Price-setting analysis
  - 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 ultimate redemption)
  - Assumed holding periods are based on the assumed new unit sales profile
  - We calculate the present value of this future unit using the expected rate of investment return
  - We then add an additional component to the unit price for contributions to the administrative expenses of the program using the following procedure
    - Start with the present value of program expenses for currently unredeemed units at June 30, 2021, as disclosed in the 2021 GAVR
    - Increase that amount with one year of interest at 4.75% to reflect a present value at the next enrollment period
    - Divide that amount by the number of unredeemed units at June 30, 2022
  - Finally, we include a reserve component in the unit price to account for adverse deviation from our assumptions (unexpected costs)

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## Methods We Used (Continued)

### ■ Risk analysis

- In our analysis, we demonstrate how a 15 percent reserve on the unit price could mitigate risk
  - For 3 select scenarios, we compare the projected unit payout value to the expected growth in assets attributable to the purchase of a single unit (accumulated assets)
    - We selected a 15-year period to approximate the average holding period of new contracts
    - We calculate a hypothetical unit price as the present value of the 15-year projected unit payout value under our best estimate tuition growth rates with a 15 percent reserve
    - We excluded the expense component from this analysis
  - To determine funded status measurements, we used the same methods as disclosed in our letter from August 19, 2022

## Actuarial Certification

- Actuarial standards of practice that specifically apply to the measurement or evaluation of prepaid tuition programs have not been defined within the actuarial profession
  - We used the standards of practice for pension systems where possible
- The data, assumptions, and methods used in this analysis are reasonable and appropriate for the primary purpose stated on slide 1 and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this presentation
  - The use of another set of assumptions and methods could also be reasonable and could produce materially different results
- This analysis may not be appropriate for other purposes and should be replaced with updated analysis for adopting a unit price in subsequent enrollment periods
- Since this analysis is based on assumptions about uncertain future events, actual results will differ to the extent that future experience differs from these assumptions
- 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
- Luke Masselink, ASA, EA, MAAA, served as the certifying actuary for this work and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein