Virginia 529 Defined Benefit 529 Program

2024 Actuarial Valuation Report

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Executive Summary

A. Summary of Key Valuation Results

Actuarial Valuation as of:	June 30, 2023 $millions	June 30, 2024 $millions
Program Assets		
Invested Assets at Fair Market Value	$2,415.0	$2,456.7
Present Value of Projected Installment Payments*	69.5	52.7
Total Assets	$2,484.5	$2,509.4
Program Obligations		
Present Value of Projected Future Benefits	$1,355.8	$1,275.4
Present Value of Future Administrative Expenses	28.9	26.4
Total Liability for Obligations	$1,384.7	$1,301.8
Actuarial Reserve		
Actuarial Reserve	$1,099.8	$1,207.6
Actuarial Reserve as a % of Total Liability for Obligations	79.4%	92.8%
Key Assumptions		
Annual Tuition Growth:		
VA Public Universities in Year 1	4.00%	4.00%
VA Public Universities in Year 2 and Beyond	6.00%	6.00%
VA Public Community Colleges in Year 1	3.00%	3.00%
VA Public Community Colleges in Year 2 and Beyond	6.00%	6.00%
Expected Return on Investments	5.75%	5.75%

* For Legacy Prepaid Accounts

B. Actuarial Discussion and Analysis

An actuarial valuation of the Virginia529 Defined Benefit 529 Program (the "Program") is conducted annually to analyze the ability of projected Program resources to fully meet projected Program contract obligations and Program expenses. The actuarial reserve is the amount, stated in present value terms, by which the expected value of Program assets (resources) exceeds the expected value of Program liabilities, including expenses (obligations). The calculation is done as of a single point in time, using a single set of actuarial assumptions and methods approved by the Virginia529 Board.

While the actuarial valuation uses a single set of actuarial assumptions, actual future Program experience will differ from the assumptions used in the valuation's calculations. The tuition growth and investment return assumptions were provided by the Board. The other assumptions used for this report were based on an experience study completed by Milliman in 2023, with an updated assumption for the reasonable rate of interest.

As of June 30, 2024 the Program has assets of $2,509.4 million and obligations of $1,301.8 million. The difference in values creates an actuarial reserve of $1,207.6 million. The ratio of assets to obligations, known as the funded ratio, is 192.8%. This means that on June 30, 2024 the assets were worth $1,207.6 million (or 92.8%) more than the amount deemed necessary, based on the actuarial assumptions. This provides that, if all actuarial assumptions are realized, the Program will have enough money to pay all the future projected obligations when due.

C. Program Experience

"Experience" encompasses the performance of the Program during the year, including investment performance, along with the effects of changes to tuition and fees, the reasonable rate of interest, and the Program's account data.

The Program experience during the year is quantified through changes in the actuarial reserve. The year-to-year changes in the reserve are detailed in Exhibit 4 of the report. The actuarial reserve increased by $107.8 million during the year. As noted in Exhibit 4, several factors impacted the reserve level over the past year:

- $63.2 million increase – interest earned on the reserve at 5.75%
- $40.8 million increase – investments earned 7.5% which is higher than the 5.75% assumption
- $4.7 million increase – tuition and fee increases were 3.1% which is lower than the 4.0% assumption
- $3.6 million increase – account maintenance expenses paid by the Operating Fund
- $0.9 million decrease – sales of 212,606 TTP units
- $0.6 million decrease – the reasonable rate of interest increased from 4.71% in the first quarter to 5.08% in the fourth quarter compared to the assumption of 5.00% for the entire year and the actual account balances increased by 7.5% compared to the assumption of 5.75%

D. Changes in Actuarial Assumptions and Methods

The actuarial assumptions and methods used in this valuation are the same as those used in the valuation conducted as of June 30, 2023 with the exception of the following:

- The tuition and fee growth assumptions for the 2025-2026 academic year were decreased from 6% to 4% for universities and from 6% to 3% for community colleges
- The assumption for the reasonable rate of interest was changed from 4% in the first year and 3% thereafter to 5% in the first year, 3.75% in the second year, and 3.25% thereafter
- Additionally, there were very minor changes made to the bias factors to account for the expectation that beneficiaries will, on average, attend Virginia public institutions with higher tuition and fees than the enrollment-weighted average, and to the volatility assumption for annual tuition increases and the return on the investment portfolio
- Please see Appendix C for a more detailed summary of this valuation's actuarial assumptions and methods.

E. Changes in Program Provisions

There have been no changes in Program provisions that affect actuarial calculations since the prior valuation. Please see Appendix D for a summary of principal Program provisions.

Exhibits

Exhibit 1

Market Value of Investments

The fair market values of investments as of June 30, 2023 and June 30, 2024 are shown below and were provided by VA529 administrative staff.

	June 30, 2023	June 30, 2024
1. Equities	$ 1,111,495,827	$ 993,875,148
2. Fixed Income including Accrued Interest	1,132,695,105	1,247,393,560
3. Futures, REIT Fund, and Real Estate	99,171,648	201,531,776
4. Cash and Cash Equivalents	68,440,031	82,528,651
5. Pending Trade Receivables	25,517,770	7,330,874
6. Accounts Receivable	474,047	258,292
7. Prepaid Expenses	1,598,511	2,186,788
8. Other Receivables	8,964,429	9,166,309
9. Accounts Payable	(831,902)	(1,711,388)
10. Pending Trades Payable	(32,527,733)	(25,813,020)
11. Total Market Value of Investments	$2,414,997,733	$2,456,746,990

Exhibit 2

Change in Market Value of Investments

The change in the market value of investments from June 30, 2023 to June 30, 2024 is shown below and was provided by VA529 administrative staff.

1.	Market Value of Assets as of June 30, 2023	$2,414,997,733
2.	TTP Unit Purchases	28,056,915
3.	Legacy Prepaid Plan Installment Payments	18,623,755
4.	Disbursements	
	a. Tuition Benefits Paid	(139,028,313)
	b. Refunds Paid	(10,245,948)
	c. Net Rollovers (Internal & External)	(31,048,712)
	Total Disbursements	(180,322,973)
5.	Investment performance	
	a. Interest and Dividends	124,070,938
	b. Change in Fair Value of Investments	69,242,679
	c. Investment Management Fees	(17,906,908)
	Total investment performance	175,406,709
6.	Net Effect of Changes in Accruals	(15,149)
7.	Net increase / (decrease) in market value of assets [(2) + (3) + (4) + (5) + (6)]	41,749,257
8.	Market value of assets as of June 30, 2024 [(1) + (6)]	$2,456,746,990

Exhibit 3

Actuarial Reserve as of June 30, 2024

The actuarial reserve is the amount, stated in present value terms, by which the expected value of Program assets (resources) exceeds the expected value of Program liabilities, including expenses (obligations). The calculation is done as of a single point in time, using a single set of actuarial assumptions and methods, and assumes that no additional tuition units are sold.

1.	Invested Assets at Fair Market Value as of June 30, 2024	$2,456,746,990
2.	Present Value of Projected Installment Payments	52,680,754
3.	Total assets: [(1) + (2)]	$2,509,427,744
4.	Present Value of Projected Future Benefits	$1,275,361,570
5.	Present Value of Future Administrative Expenses	26,419,184
6.	Total Liability for Obligations: [(4) + (5)]	$ 1,301,780,754
7.	Actuarial Reserve as of June 30, 2024: [(3) - (6)]	$ 1,207,646,990
8.	Actuarial Reserve as a Percentage of Total Liability: [(7) ÷ (6)]	92.8%

Expected Cash Flows in 2024-2025:

Installment Payments	$13,832,478
Tuition, Rollover, and Refund Payments	$179,761,733

Exhibit 4

Change in Actuarial Reserve from June 30, 2023 to June 30, 2024

A number of factors contributed to the year-to-year change in the Actuarial Reserve, as quantified below.

	($millions)
1. Actuarial Reserve as of June 30, 2023	$1,099.8
Increase/(decrease) in Reserve from June 30, 2023 to June 30, 2024 due to:	
2. Interest on the Reserve at 5.75%	63.2
3. New TTP Sales	(0.9)
4. Investment return during 2023-2024 higher than expected	40.8
5. Change to Reasonable Rate and Actual account balances	(0.6)
6. Tuition increases for 2024-2025 lower than expected	4.7
7. Account maintenance expenses paid by Operating Fund	3.6
8. Update to bias assumption	(0.5)
9. Change to investment and tuition volatility assumptions	2.1
10. Change to Reasonable Rate assumption	(15.0)
11. Change to tuition growth assumption	5.3
12. Other experience	5.1
13. Total increase/(decrease) in Actuarial Reserve during the year	$107.8
14. Actuarial Reserve as of June 30, 2024	$1,207.6

Exhibit 5

Projected Cash Flows Under the Valuation Assumptions* ($Millions)

Year Ending June 30:	Beginning Market Value of Investments	Expected Installment Payments	Expected Tuition, Rollover, & Refund Payments	Expected Account Expenses	Expected Investment Earnings	Ending Market Value of Investments
2025	$2,456.7	$13.8	$179.8	$3.4	$129.1	$2,416.4
2026	2,416.4	11.4	170.3	3.3	127.1	2,381.3
2027	2,381.3	9.3	159.2	3.2	125.6	2,353.8
2028	2,353.8	7.5	151.0	3.1	124.2	2,331.4
2029	2,331.4	5.7	142.6	2.9	123.3	2,314.9
2030	2,314.9	4.4	131.2	2.8	122.9	2,308.2
2031	2,308.2	3.5	118.6	2.6	122.9	2,313.4
2032	2,313.4	2.6	106.9	2.5	123.8	2,330.4
2033	2,330.4	1.9	94.5	2.2	125.1	2,360.7
2034	2,360.7	1.3	82.4	2.0	127.4	2,405.0
2035	2,405.0	0.8	73.1	1.7	130.1	2,461.1
2036	2,461.1	0.4	66.3	1.5	133.5	2,527.2
2037	2,527.2	0.1	56.5	1.3	137.6	2,607.1
2038	2,607.1	0.0	47.8	1.1	142.4	2,700.6
2039	2,700.6	0.0	38.2	0.9	148.0	2,809.5
2040	2,809.5	0.0	29.5	0.8	154.4	2,933.6
2041	2,933.6	0.0	22.4	0.6	161.4	3,072.0
2042	3,072.0	0.0	17.5	0.5	169.4	3,223.4
2043	3,223.4	0.0	13.0	0.4	178.0	3,388.0
2044	3,388.0	0.0	9.0	0.3	187.3	3,566.0
2045	3,566.0	0.0	6.1	0.2	197.2	3,756.9
2046	3,756.9	0.0	4.5	0.2	208.0	3,960.2
2047	3,960.2	0.0	2.8	0.1	219.2	4,176.5
2048	4,176.5	0.0	1.7	0.1	231.2	4,405.9
2049	4,405.9	0.0	0.9	0.1	244.0	4,648.9
2050	4,648.9	0.0	0.7	0.0	257.5	4,905.7
2051	4,905.7	0.0	0.5	0.0	271.6	5,176.8
2052	5,176.8	0.0	0.3	0.0	286.8	5,463.3
2053	5,463.3	0.0	0.0	0.0	302.5	5,765.8

* The annual investment return in the cash flow exhibit is 5.54%. This is the investment return assumption that produces the same actuarial reserve under a deterministic projection of tuition, rollovers, refunds, and expenses as the reserve developed from the fully stochastic projections used as the basis for the actuarial valuation.

Exhibit 6

Valuation Basis and Probability of Sufficiency for Different Funding Levels

Percentage of Best Estimate Reserve	Probability of Funds Exceeding Obligations	Total Defined Benefit 529 Assets at June 30, 2024	
100.0%	50.0%	$1,302	*best estimate of obligations*
102.9%	60.0%	1,339	
105.6%	70.0%	1,375	
111.2%	80.0%	1,448	
116.4%	90.0%	1,516	
121.8%	95.0%	1,586	
125.7%	97.5%	1,637	
131.3%	99.0%	1,709	
134.8%	99.5%	1,755	
192.8%	99.9%	2,509	*current Fund position*

Valuation Basis

The assumptions selected for this report are intended to be "best estimates". The method for determining the “best estimate” liability for the Program reflects the possible variability of inflation, tuition, and investment returns and the correlation between each of these variables. The present values of the obligations shown in this report were based on assumptions which represent an estimate of anticipated experience under the Fund that are reasonably related to past educational cost and investment data. Differences between those projections and actual amounts will depend on the extent to which future experience conforms to the assumptions made for this analysis. A prime source of variation will be normal fluctuations that occur in the rate of increase in tuition, investment returns, and expense inflation. To estimate the range of possible outcomes we stochastically modeled the financial operation of the Program using “Monte Carlo” techniques. This approach involves preparing 1,000 projections of financial results under randomly derived scenarios of tuition growth, investment returns, and expense inflation. Each of these scenarios is based on statistical factors such as standard deviation and correlation that were estimated by reviewing historical results adjusted where appropriate to reflect current conditions. By tabulating the results under all of these projections we estimated the probability that current assets, along with the expected remaining legacy contract payments plus investment returns, will be sufficient to cover the obligations of the DB529 Program.

The “best estimate” value of obligations for future payments ($1,302 million) shown in this report is the amount of assets necessary to have a 50% probability of meeting all program obligations, including administrative costs, associated with current accounts. The actual Defined Benefit 529 fund balance at June 30, 2024 of $2,509 million is 192.8% of the actuarially determined best estimate amount. As indicated in the above table, this fund balance is estimated to have a 99.9% probability of being adequate to satisfy all of the Program’s obligations using current assumptions.

Note that while we believe this methodology is sound and appropriate for developing the “best estimate” of the obligations, it may not be as appropriate for developing estimates of the probabilities of extreme outcomes such as those shown near the bottom of the table above.

Certification

Caveats and Limitations of Use

The actuarial valuation of the Virginia529 Defined Benefit 529 Program as of June 30, 2024 has been completed in accordance with our understanding of Program provisions using assumptions and methods as described in this report. It also has been completed in accordance with our understanding of any applicable guidance or interpretations provided by Virginia529. The valuation results contained in this report are based on the actuarial assumptions and methods (Appendix C), principal Program provisions (Appendix D), and contract data (Appendix B) summarized in the appendices.

Purpose of the Valuation

The actuarial reserve portion of the actuarial valuation assesses, as of a single point in time, the estimated sufficiency of Program assets (investments currently held and estimated future installment payments for contracts currently in force) to satisfy Program obligations (estimated future Program benefit payments and administrative expenses).

Assumptions and Methods

All liabilities shown in this report have been determined on the basis of actuarial assumptions and methods set forth in Appendix C. The assumptions and methods used in this valuation, other than the annual tuition growth and investment return assumptions, are based on an experience study completed by Milliman in 2023, with an updated reasonable rate of interest assumption.

Limited Use

We believe the assumptions and methods used in this report for purposes of calculating the actuarial reserve are reasonable for the purposes of the measurements. The results of this report are dependent upon future experience conforming to the assumptions disclosed in this report. Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: Program experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in Program provisions and/or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. Determinations for purposes other than meeting those requirements referenced above may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Reliance

In preparing our report we relied, without audit, on information (some oral and some written) supplied by Virginia529. This information includes, but is not limited to, statutory provisions, contract data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

This actuarial valuation was prepared and completed by us and those under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our professional opinion, the techniques and assumptions used are reasonable. To the best of our knowledge, there is no benefit provision or related expense to be provided by the Program and/or paid from the Program's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation, and there were no known events that were not taken into account in the valuation.

Milliman's work product was prepared exclusively for the internal business use of the Program, for a specific and limited purpose. It is a complex technical analysis that assumes a high level of knowledge concerning the Program's operations and uses Program data which Milliman has not audited. To the extent that Milliman's work is not subject to disclosure under applicable public record laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) The Program may provide a copy of Milliman's work, in its entirety, to the Program's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Program.

(b) The Program may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the Program sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Certification

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with Actuarial Standards of Practice, the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

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Appendices

Appendix A – Average Tuition

Derivation of Average Tuition at Four Year Universities

Based on Fall 2023 Full-Time Equivalent Enrollment

School	Tuition and Fees 2024-2025	Fall 2023 FTE for In-State Undergraduates	Percent Distribution
Christopher Newport	$16,828	4,082	3.23%
George Mason	14,220	20,138	15.95%
James Madison	13,966	15,261	12.09%
Longwood	15,740	2,692	2.13%
Mary Washington	14,905	2,843	2.25%
Norfolk State	10,180	3,660	2.90%
Old Dominion	12,750	13,270	10.51%
Radford	12,548	4,828	3.82%
University of Virginia (2022, 2023)*	19,422	5,748	4.55%
University of Virginia (2020, 2021)	22,424	5,748	4.55%
UVA - Wise	11,780	1,143	0.91%
Virginia Commonwealth	16,720	17,762	14.07%
Virginia Military Institute	21,046	1,026	0.81%
Virginia Tech	15,950	20,354	16.12%
Virginia State	10,048	3,367	2.67%
William & Mary	25,734	4,328	3.43%
Total		126,250	100.00%
Average Tuition**	**$15,544**		

* Assumes that 2022 and 2023 students are 50% of total FTE for University of Virginia.

**The Board rounded to $15,500 for purposes of determining the 2024-2025 TTP unit value.

Appendix A – Average Tuition (continued)

Derivation of Enrollment-Weighted Average Tuition and Mandatory Fees at Community Colleges Based on Fall 2023 Full-Time Equivalent Enrollment

School	Tuition and Fees 2024-2025	Fall 2023 FTE for In-State Undergraduates	Percent Distribution
Blue Ridge	$6,022	1,974	2.50%
Central Virginia	5,501	1,925	2.43%
Mountain Gateway (formerly Dabney Lancaster)	5,357	543	0.69%
Danville	5,325	1,432	1.81%
Eastern Shore	5,421	389	0.49%
Germanna	5,606	4,195	5.30%
J Sargeant Reynolds	5,632	4,201	5.31%
Brightpoint (formerly John Tyler)	5,421	4,408	5.57%
Laurel Ridge (formerly Lord Fairfax)	5,410	3,430	4.34%
Mountain Empire	5,341	1,321	1.67%
New River	5,310	2,397	3.03%
Northern Virginia	6,284	24,614	31.11%
Patrick & Henry	5,335	1,381	1.75%
Paul D. Camp	5,346	639	0.81%
Piedmont Virginia	5,410	2,540	3.21%
Rappahannock	5,442	1,529	1.93%
Richard Bland	9,093	1,301	1.64%
Southside Virginia	5,341	1,882	2.38%
Southwest Virginia	5,413	1,466	1.85%
Virginia Peninsula (formerly Thomas Nelson)	5,427	3,180	4.02%
Tidewater	6,248	8,529	10.78%
Virginia Highlands	5,341	1,214	1.53%
Virginia Western	5,760	3,289	4.16%
Wytheville	5,341	1,332	1.68%
Total		79,111	100.00%
Weighted Average Tuition and Fees	**$5,877**		

Appendix A – Average Tuition (continued)

Academic Year	University Tuition and Fees	% Increase	Community College Tuition and Fees	% Increase
1989-1990	2,544		798	
1990-1991	2,702	6.2%	894	12.0%
1991-1992	2,985	10.5%	1,050	17.4%
1992-1993	3,357	12.5%	1,230	17.1%
1993-1994	3,659	9.0%	1,320	7.3%
1994-1995	3,789	3.6%	1,359	3.0%
1995-1996	3,949	4.2%	1,445	6.3%
1996-1997	4,002	1.3%	1,445	0.0%
1997-1998	4,095	2.3%	1,445	0.0%
1998-1999	4,217	3.0%	1,445	0.0%
1999-2000	3,721	(11.8%)	1,159	(19.8%)
2000-2001	3,793	1.9%	1,159	0.0%
2001-2002	3,843	1.3%	1,159	0.0%
2002-2003	4,122	7.3%	1,671	44.3%
2003-2004	5,033	22.1%	1,882	12.6%
2004-2005	5,559	10.5%	2,006	6.5%
2005-2006	5,990	7.8%	2,135	6.4%
2006-2007	6,529	9.0%	2,269	6.3%
2007-2008	6,966	6.7%	2,404	5.9%
2008-2009	7,562	8.6%	2,584	7.5%
2009-2010	7,912	4.6%	2,781	7.6%
2010-2011	8,803	11.3%	3,285	18.1%
2011-2012	9,507	8.0%	4,179*	27.2%*
2012-2013	9,856	3.7%	4,426	5.9%
2013-2014	10,225	3.7%	4,619	4.4%
2014-2015	10,797	5.6%	4,835	4.7%
2015-2016	11,409	5.7%	5,101	5.5%
2016-2017	11,961	4.8%	5,263	3.2%
2017-2018	12,494	4.5%	5,439	3.3%
2018-2019	13,210	5.7%	5,569	2.4%
2019-2020	13,395	1.4%	5,572	0.1%
2020-2021	13,636	1.8%	5,531	(0.7%)
2021-2022**	13,949	2.3%	5,542	0.2%
2022-2023**	14,505	4.0%	5,550	0.1%
2023-2024**	15,083	4.0%	5,700	2.7%
2024-2025**	15,544	3.1%	5,877	3.1%

* Starting with the 2011-2012 year, Community College Tuition and Fees is measured as an enrollment-weighted average. Prior to that, a non-enrollment-weighted average was used. Enrollment numbers taken from SCHEV's website.

** The Average Tuition for purposes of determining the 2021-2022 TTP unit value was $13,884.
** The Average Tuition for purposes of determining the 2022-2023 TTP unit value was $14,500.
** The Average Tuition for purposes of determining the 2023-2024 TTP unit value was $15,100.
** The Average Tuition for purposes of determining the 2024-2025 TTP unit value was $15,500.

Appendix A – Average Tuition (continued)

Annualized Increase in Average Tuition and Fees

	University	Community College
Over last 5 years:	3.0%	1.1%
Over last 10 years:	3.7%	2.0%
Over last 15 years	4.6%	5.1%
Over last 20 years:	5.3%	5.5%
Over last 25 years:	5.9%	6.7%
Over last 30 years:	4.8%	5.0%
Over last 35 years:	5.3%	5.9%

Appendix B – Contract Data as of June 30, 2024

Contract Data as of June 30, 2024 – Contracts Purchasing Tier I Units Only - Number of Contracts

Matriculation Year	Total Years of Community College Purchased / Total Years of University Purchased										Total by Payout Year	Percent of Total
	0	0	0	0	0	0	0	0	0	0		
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5		
2000-2001	0	0	0	0	0	0	0	1	0	0	1	0.0%
2001-2002	0	0	0	0	0	0	0	0	0	0	0	0.0%
2002-2003	0	0	0	0	0	0	0	0	0	0	0	0.0%
2003-2004	0	0	0	0	0	0	0	0	0	0	0	0.0%
2004-2005	0	0	0	0	0	0	0	0	0	0	0	0.0%
2005-2006	0	0	0	0	0	0	0	4	0	0	4	0.0%
2006-2007	0	0	0	0	0	0	0	1	0	0	1	0.0%
2007-2008	0	0	0	1	0	0	0	3	0	0	4	0.0%
2008-2009	0	1	0	2	0	0	0	6	0	0	9	0.0%
2009-2010	0	2	0	1	0	0	0	11	0	1	15	0.0%
2010-2011	0	4	0	2	0	1	0	6	0	0	13	0.0%
2011-2012	0	2	0	0	0	1	0	19	0	2	24	0.1%
2012-2013	0	2	0	4	0	1	0	21	0	2	30	0.1%
2013-2014	0	2	0	4	0	0	0	27	0	3	36	0.1%
2014-2015	0	35	0	35	0	9	0	322	0	30	431	1.3%
2015-2016	1	57	0	64	1	19	2	415	0	47	606	1.8%
2016-2017	2	56	2	64	0	24	0	414	0	41	603	1.8%
2017-2018	2	58	1	84	2	22	3	454	0	67	693	2.0%
2018-2019	6	96	4	103	2	18	0	638	0	83	950	2.8%
2019-2020	14	100	3	119	2	26	1	730	1	90	1,086	3.2%
2020-2021	32	141	5	142	7	32	4	924	0	88	1,375	4.0%
2021-2022	103	286	32	277	12	89	8	1,812	2	121	2,742	8.0%
2022-2023	212	378	43	374	28	136	6	1,510	2	61	2,750	8.0%
2023-2024	287	508	47	481	22	113	13	1,372	1	52	2,896	8.4%
2024-2025	423	596	66	465	23	111	4	1,174	3	70	2,935	8.5%
2025-2026	468	589	48	446	27	79	11	1,023	1	57	2,749	8.0%
2026-2027	449	517	54	354	16	75	6	805	3	42	2,321	6.8%
2027-2028	421	482	50	375	15	72	8	727	3	38	2,191	6.4%
2028-2029	394	401	53	294	20	52	8	617	1	26	1,866	5.4%
2029-2030	423	356	49	237	8	33	3	493	1	27	1,630	4.7%
2030-2031	382	290	41	221	13	44	3	349	1	15	1,359	4.0%
2031-2032	413	282	27	153	12	20	4	300	2	13	1,226	3.6%
2032-2033	341	214	27	147	6	27	5	240	1	20	1,028	3.0%
2033-2034	271	176	29	104	10	19	3	181	1	12	806	2.3%
2034-2035	229	150	18	112	9	17	2	153	0	10	700	2.0%
2035-2036	183	136	19	100	13	27	5	142	1	11	637	1.9%
2036-2037	74	83	10	55	1	13	2	111	0	10	359	1.0%
2037-2038	31	35	4	45	2	6	0	46	0	7	176	0.5%
2038-2039	0	8	0	7	0	0	0	22	0	2	39	0.1%
2039-2040	0	4	0	3	0	0	0	13	0	1	21	0.1%
2040-2041	0	1	0	1	1	0	0	6	0	0	9	0.0%
2041-2042	0	1	0	1	0	0	0	7	0	0	9	0.0%
2042-2043	0	0	0	1	0	0	0	1	0	1	3	0.0%
Total	5,161	6,049	632	4,878	252	1,086	101	15,100	24	1,050	34,333	
Percent of Total	15.0%	17.6%	1.8%	14.2%	0.7%	3.2%	0.3%	44.0%	0.1%	3.1%		

Appendix B – Contract Data as of June 30, 2024 (continued)

Contract Data as of June 30, 2024 – Contracts Purchasing Tier II Units Only - Number of Contracts

	Total Years of Community College Purchased / Total Years of University Purchased															
Matriculation Year	0.5 / 0	1 / 0	1.5 / 0	2 / 0	2.5 / 0	3 / 0	3.5 / 0	4 / 0	4.5 / 0	5 / 0	5.5 / 0	6 / 0	8 / 0	10 / 0	**Total by Payout Year**	**Percent of Total**
2000-2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2001-2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2002-2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2003-2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2004-2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2005-2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2006-2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2007-2008	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1%
2008-2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2009-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2010-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2011-2012	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0.2%
2012-2013	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0.2%
2013-2014	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1%
2014-2015	0	9	0	31	0	3	0	0	0	0	0	0	0	0	43	3.5%
2015-2016	0	9	0	40	0	1	0	0	0	0	0	0	0	0	50	4.1%
2016-2017	0	8	0	27	0	0	0	0	0	0	0	0	0	0	35	2.9%
2017-2018	1	12	0	31	0	4	0	0	0	0	0	0	0	0	48	3.9%
2018-2019	1	5	0	26	2	6	0	0	0	0	0	0	0	1	41	3.4%
2019-2020	2	12	0	40	0	11	0	0	0	0	0	0	0	0	65	5.3%
2020-2021	1	9	0	45	0	5	0	0	0	0	0	0	0	0	60	4.9%
2021-2022	1	12	1	42	1	4	0	0	0	0	0	0	0	0	61	5.0%
2022-2023	6	24	0	49	1	2	0	1	0	0	0	0	0	0	83	6.8%
2023-2024	6	25	0	59	2	3	0	2	0	0	0	0	0	1	98	8.1%
2024-2025	9	34	2	45	1	4	0	1	0	0	0	0	0	0	96	7.9%
2025-2026	10	27	1	42	0	2	0	1	0	1	0	0	0	2	86	7.1%
2026-2027	5	13	0	40	0	6	0	1	1	0	0	0	0	0	66	5.4%
2027-2028	10	18	0	32	0	3	0	0	0	1	0	0	0	1	65	5.3%
2028-2029	10	18	1	35	1	2	0	1	0	0	0	0	0	0	68	5.6%
2029-2030	10	12	0	38	0	3	0	1	1	0	0	0	0	0	65	5.3%
2030-2031	17	11	0	20	0	2	1	3	0	0	0	0	0	1	55	4.5%
2031-2032	18	7	2	15	0	1	0	0	0	0	0	0	0	0	43	3.5%
2032-2033	11	10	1	12	0	1	0	0	0	0	0	0	0	0	35	2.9%
2033-2034	11	4	0	8	0	1	0	3	0	0	0	0	0	0	27	2.2%
2034-2035	3	4	0	5	0	0	0	0	0	0	0	0	0	0	12	1.0%
2035-2036	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3	0.2%
2036-2037	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1%
2037-2038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2038-2039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2039-2040	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1%
2040-2041	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1%
2041-2042	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1%
2042-2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	132	287	8	691	8	65	1	14	2	2	0	0	0	6	1,216	
Percent of Total	10.9%	23.6%	0.7%	56.8%	0.7%	5.3%	0.1%	1.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.5%		

Appendix B – Contract Data as of June 30, 2024 (continued)

Contract Data as of June 30, 2024 – Contracts Purchasing Tier I and Tier II Units - Number of Contracts

Total Years of Community College Purchased / Total Years of University Purchased																																			
Matriculation	0.5	0.5	0.5	0.5	0.5	0.5	1	1	1	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5	2	2	2	2	2	2	2	2.5	2.5	3	3	3	3	Total by Payout	Percent of
Year	0.5	1	1.5	2	2.5	3.5	0.5	1	1.5	2	2.5	3	4	5	0.5	1	1.5	2	2.5	3	0.5	1	1.5	2	3	4	5	1.5	2.5	1	2	3	5	Year	Total
2000-2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2001-2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2002-2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2003-2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2004-2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2005-2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2006-2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2007-2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2008-2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2009-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0.2%
2010-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2011-2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1%
2012-2013	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0.2%
2013-2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4	0.4%
2014-2015	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	1	0	30	1	0	0	0	0	0	0	0	0	37	3.6%
2015-2016	0	0	0	0	0	0	1	3	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	33	0	1	0	0	0	1	0	0	0	45	4.4%
2016-2017	0	0	0	0	0	0	1	2	0	1	0	3	1	0	0	0	0	0	0	0	0	1	0	28	0	1	0	0	0	0	0	0	2	40	3.9%
2017-2018	0	0	0	1	0	0	1	6	0	1	0	2	0	0	0	0	0	0	0	0	0	3	0	36	1	0	0	0	0	0	0	0	0	51	4.9%
2018-2019	0	0	0	0	0	0	0	3	0	1	0	4	2	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	2	1	56	5.4%
2019-2020	1	0	1	0	0	0	0	6	0	2	0	5	0	0	0	0	0	0	0	0	0	4	1	51	1	0	0	0	0	0	0	0	0	72	7.0%
2020-2021	1	0	2	0	0	1	0	3	0	2	0	1	0	0	0	0	0	0	0	0	0	5	0	52	2	0	0	0	0	0	0	0	1	70	6.8%
2021-2022	0	1	0	0	0	0	0	5	0	2	1	6	2	0	0	0	0	0	0	0	0	4	0	74	0	0	0	0	0	2	0	1	1	99	9.6%
2022-2023	0	0	0	0	0	0	1	3	1	4	1	5	1	1	0	0	0	0	0	0	0	2	0	57	5	0	0	0	1	2	0	0	0	84	8.1%
2023-2024	2	0	0	0	0	0	1	2	0	4	0	8	1	0	0	1	0	0	1	0	2	8	0	65	3	1	0	0	0	1	0	0	2	102	9.9%
2024-2025	0	0	0	0	0	0	1	1	1	2	0	6	0	1	0	0	0	1	0	0	0	7	0	53	0	0	1	0	0	0	0	0	0	74	7.2%
2025-2026	1	0	0	0	0	1	1	2	2	6	0	2	0	0	0	0	0	0	0	0	0	4	0	38	4	0	0	0	1	0	0	0	1	63	6.1%
2026-2027	0	0	1	0	0	0	1	3	0	2	1	4	2	0	0	0	0	0	0	0	0	3	0	25	0	0	0	0	0	0	0	0	0	42	4.1%
2027-2028	1	1	0	0	0	0	1	4	0	2	0	2	1	0	0	0	0	0	0	0	0	4	0	25	1	0	0	0	0	0	1	0	1	44	4.3%
2028-2029	7	1	0	0	0	0	0	4	0	2	0	3	1	0	0	0	0	0	0	0	0	4	0	22	0	0	0	1	0	0	0	0	0	45	4.4%
2029-2030	0	1	0	0	0	0	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	18	0	0	0	0	0	0	0	0	0	25	2.4%
2030-2031	0	0	1	0	0	0	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	2	0	10	0	1	0	0	0	0	0	0	0	19	1.8%
2031-2032	2	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	14	1.4%
2032-2033	1	1	0	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	14	1.4%
2033-2034	4	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	6	0	0	0	0	0	0	0	0	0	15	1.5%
2034-2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0.4%
2035-2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0.2%
2036-2037	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1%
2037-2038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0.2%
2038-2039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1%
2039-2040	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0.2%
2040-2041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2041-2042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1%
2042-2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1%
Total	20	5	7	3	0	2	12	54	5	36	3	62	11	2	1	1	0	1	1	0	3	60	1	698	18	4	1	1	2	6	1	3	10	1,034	
Percent of Total	1.9%	0.5%	0.7%	0.3%	0.0%	0.2%	1.2%	5.2%	0.5%	3.5%	0.3%	6.0%	1.1%	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.3%	5.8%	0.1%	67.5%	1.7%	0.4%	0.1%	0.1%	0.2%	0.6%	0.1%	0.3%	1.0%		

Appendix B – Contract Data as of June 30, 2024 (continued)

Tuition Track Portfolio Account Data as of June 30, 2024

Projected Enrollment Year	Number of Accounts	Total Units Remaining	Average Number of Units
2021-2022	31	1,596	51
2022-2023	140	11,749	84
2023-2024	299	23,522	79
2024-2025	453	56,107	124
2025-2026	515	61,895	120
2026-2027	538	69,073	128
2027-2028	617	69,765	113
2028-2029	556	56,343	101
2029-2030	590	59,124	100
2030-2031	578	44,266	77
2031-2032	614	53,259	87
2032-2033	560	43,600	78
2033-2034	554	38,223	69
2034-2035	602	38,956	65
2035-2036	526	31,364	60
2036-2037	546	26,859	49
2037-2038	560	30,465	54
2038-2039	647	37,576	58
2039-2040	739	31,542	43
2040-2041	662	25,865	39
2041-2042	614	14,636	24
2042-2043	131	1,514	12
Total	11,072	827,299	75

Appendix C – Actuarial Assumptions and Methods

Investment / Economic Assumptions for Stochastic Simulation Model:

The standard deviation and correlation assumptions are based on actual historical returns and tuition growth. Expected return assumptions are based on Milliman's capital market assumptions but are adjusted so that the expected annualized return on the portfolio is 5.75%, which is the assumption set by the Board.

	Inflation	Reason-able Rate	Public Equity	Non-Core Fixed	Core Fixed	Private Equity	Real Estate	University Tuition	Community College Tuition
Expected Arithmetic Mean Annual Return	2.50%	3.25%	7.12%	5.47%	3.67%	9.02%	6.37%	6.06%	6.10%
Standard Deviation	1.85%	2.20%	15.90%	7.60%	4.90%	18.00%	11.25%	4.10%	6.25%
Correlation:									
Inflation	1.00	0.11	0.17	-0.19	-0.53	0.28	0.49	0.02	-0.14
Reasonable Rate		1.00	0.08	0.22	0.36	0.08	-0.01	-0.33	-0.27
Public Equity			1.00	0.54	-0.21	0.86	0.30	-0.09	-0.17
Non-Core Fixed				1.00	0.46	0.48	0.04	0.32	0.07
Core Fixed					1.00	-0.14	-0.11	0.12	0.21
Private Equity						1.00	0.49	-0.03	-0.18
Real Estate							1.00	0.06	-0.02
University Tuition								1.00	0.60
CC Tuition									1.00

Based on the economic assumptions above, the expected long-term annualized rate of return on investments is 5.75%. The expected annualized rate of tuition growth for universities is 4.00% for the next year and then 6.00% thereafter. The expected annualized rate of tuition growth for community colleges is 3.00% for the next year and then 6.00% thereafter. The Reasonable Rate was fixed at 5.00% for the first year and a mean yield of 3.75% for the second year and a mean yield of 3.25% thereafter.

Appendix C – Actuarial Assumptions and Methods (continued)

Matriculation and Bias:

Starting in the year of matriculation, it is assumed that contracts will either use benefits for tuition or will request a cancellation, transfer, or rollover to a savings plan. If they use the benefits towards tuition, it is assumed that 79% of beneficiaries will attend a public university in Virginia, 6% will attend a private university in Virginia, and 15% will attend a university in another state.

For legacy Prepaid529 contracts, we compare each of the Virginia public university projected tuition and fee amounts to the account's projected Reasonable Rate account balance, paying the higher of the two amounts, and calculate a probability weighted payout based on the trailing 5-year average distribution of unit redemptions at each of the schools. Before reflecting the account balances, the probability weighted average payout is 10% higher than enrollment-weighted Average Tuition.

Weighted average tuition for two-year community colleges in Virginia was adjusted with a 1.0% load to add a bias for matriculation at more expensive schools. The highest tuition for a public university in Virginia was assumed to be 166% of weighted average tuition ($25,734/$15,544) as shown in Appendix D).

Out-of-state students and contracts requesting a rollover are assumed to receive a benefit equal to the payments made on the contract plus interest at the composite reasonable rate of return. All TTP accounts are assumed to receive weighted average tuition for units redeemed after reaching their expected enrollment year.

Combination Contracts:

For combination contracts a portion of the remaining university and community college years are assumed to be paid each year. For combination contracts currently in payout with only university years or community college years remaining, the applicable remaining years are assumed to be paid.

Appendix C – Actuarial Assumptions and Methods (continued)

Utilization:

It is assumed that participants will utilize their accounts at the following rates:

Percentage of total units redeemed each year

Year:	Matric	M+1	M+2	M+3	M+4	M+5	M+6	M+7	M+8	M+9	M+10	Total
1 - 2 Units												
Tuition:	27.5%	15.6%	11.2%	10.5%	2.2%	0.9%	0.7%	0.5%	0.4%	0.3%	0.2%	70.0%
Cancel / rollover:	11.0%	4.1%	2.7%	2.1%	1.5%	0.8%	0.8%	0.6%	0.7%	0.7%	5.0%	30.0%
Total:	38.5%	19.7%	13.9%	12.6%	3.7%	1.7%	1.5%	1.1%	1.1%	1.0%	5.2%	100.0%
3 - 6 Units												
Tuition:	17.6%	20.0%	15.7%	11.4%	2.4%	1.1%	0.7%	0.4%	0.3%	0.2%	0.2%	70.0%
Cancel / rollover:	8.8%	5.1%	3.2%	2.4%	1.5%	1.1%	0.8%	0.9%	0.7%	0.6%	4.9%	30.0%
Total:	26.4%	25.1%	18.9%	13.8%	3.9%	2.2%	1.5%	1.3%	1.0%	0.8%	5.1%	100.0%
7 or More Units												
Tuition:	17.2%	17.8%	17.8%	17.0%	2.7%	1.0%	0.6%	0.4%	0.2%	0.2%	0.1%	75.0%
Cancel / rollover:	6.4%	3.5%	2.9%	2.6%	1.3%	0.9%	0.7%	0.6%	0.5%	0.6%	5.0%	25.0%
Total:	23.6%	21.3%	20.7%	19.6%	4.0%	1.9%	1.3%	1.0%	0.7%	0.8%	5.1%	100.0%

For utilization, we assume that TTP accounts with fewer than 5 semesters of units will eventually purchase 5 units.

Forfeiture: It is assumed that contracts and accounts will be forfeited prior to the year of matriculation at a rate of 0.75% per year.

Expenses:

Expenses: The expenses included in the present value of future obligations are those relating to:

Annual Maintenance Expense per Legacy Prepaid529 Contract = $85.07

Annual Maintenance Expense per TTP Account = $22.69

The expense assumptions were developed from a cost analysis performed in 2021 by Virginia College Savings Plan staff. These expenses are assumed to increase annually at the rate of general price inflation plus 0.50%.

Legacy Prepaid529 contracts behind in their monthly payments: The monthly scheduled payment amount is increased by an amount that allows for the full payment under the contract by June of the year of expected matriculation.

Appendix C – Actuarial Assumptions and Methods (continued)

Rational for Assumptions:

All of the actuarial assumptions with the exception of the investment return, the tuition growth rate, the reasonable rate, and the bias were based on the results of an experience study performed by Milliman in 2023 (see the Experience Study report dated August 2023).

The reasonable rate assumption was based on the current money market yield used to set the rate and forecasts of future short-term interest rates from a survey of economists published in the *June 2024 Blue Chip Financial Forecasts.*

The investment return assumption is set by the Board based on recommendations from Virginia529's investment consultant.

The tuition growth assumptions are also set by the Board. Milliman assisted Virginia529 staff in 2015 with a historical analysis of long-term tuition growth at public colleges in Virginia.

The bias assumption for Virginia public universities was increased from 10.0% to 10.1% based on the distribution of unit redemptions at the universities over the past 5 years and the relative tuition and fee amounts at these schools in 2024-2025.

Appendix D – Prepaid Plan Benefits

Prepaid Plan Benefits:

For beneficiaries attending a Virginia public college, university, or community college, Prepaid529 will pay the full amount of in-state undergraduate tuition and all mandatory fees for a normal full-time course load for a general course of study on a semester-by-semester basis for the type of school and number of years purchased. Prepaid529 payments to in-state public schools will not exceed the actual cost of the in-state undergraduate tuition and mandatory fees. In 2019, the Virginia General Assembly passed legislation that included provisions for Prepaid529 contracts entered into prior to July 1, 2019. These provisions allow for payment of the "Minimum Benefit" (contract payments, accumulated at the reasonable rate of return), on a semester by semester basis, directly from Prepaid529 to qualified higher education institutions when it exceeds the normal payout from the program. The contract-holder also has the option to transfer the total amount of all payments, accumulated at the reasonable rate of return, to a Virginia529 savings program, and request a withdrawal from the respective program to pay for qualified higher education expenses.

For beneficiaries attending a Virginia independent (private) college or university, Prepaid529 will pay to the Virginia private school, including certain private career schools, the lesser of 1) the payments made on the contract plus the actual rate of return earned on the Fund or 2) the highest in-state undergraduate tuition and mandatory fees at a Virginia public school in the same academic year the benefits are used. All payments will be made directly to the school on a semester-by-semester basis following the school's add-drop period. The student or his or her family is responsible for any additional expenses not covered by Prepaid529. The contract-holder has the option to transfer the total amount of all payments, accumulated at the reasonable rate of return, to a Virginia529 savings program and request a withdrawal from the respective program to pay for qualified higher education expenses.

For beneficiaries attending an out-of-state public or private college or university, Prepaid529 will pay the lesser of 1) the payments made on the contract plus interest at the composite reasonable rate of return or 2) the average in-state undergraduate tuition and mandatory fees at Virginia public schools for the same academic year the benefits are used. Payments will be made on a semester-by-semester basis from Prepaid529. The student or his or her family is responsible for any additional expenses not covered by Prepaid529. The contract-holder has the option to transfer the total amount of all payments, accumulated at the reasonable rate of return, to a Virginia529 savings program and request a withdrawal from the respective program to pay for qualified higher education expenses.

The reasonable rate of return tracks the quarterly performance of the Institutional Money Funds Index as reported in the Money Fund Monitor by iMoneyNet.

Appendix E – Program Background

The Virginia College Savings Plan ("VA529" or "the Plan"), a body politic and corporate and an independent agency of the Commonwealth of Virginia was created in 1994 by the Virginia General Assembly to enhance the accessibility and affordability of higher education for all citizens of the Commonwealth. The longest standing mandate centers on educational attainment, on which VA529 has focused since opening its first program in 1996 by offering education savings programs to help make higher education more affordable and accessible for all citizens of the Commonwealth. VA529's mature programs are comprised of prepaid and education savings programs, including the legacy Prepaid529 (a defined benefit option), Invest529 and CollegeAmerica programs.

The legacy Prepaid529 program was closed to new participants after its final enrollment period in 2019. A successor program was opened in February 2021. This program is known as the Tuition Track Portfolio (TTP) and is offered as a defined benefit option within the Invest529 program. VA529 continues to service existing customers in the Prepaid529 program. Together Prepaid529 and TTP are known as the Defined Benefit 529 Program ("DB529" or "the Program"). Since TTP is a continuation of the legacy prepaid program, funds are combined and invested in the Program Fund to meet future obligations.

The Program Fund consists of payments received pursuant to legacy Prepaid529 contracts, purchases of TTP units, bequests, endowments or grants from the United States government, its agencies and instrumentalities, and any other available sources of funds, public or private, allocated to the Program Fund. Any moneys remaining in the Program at the end of a biennium shall remain in the Fund, including interest and income earned from the investment of such funds.

In 1998, the Virginia General Assembly passed legislation that requires the Governor to include in each year's state budget an amount to cover the Plan's obligations, in the event "the Plan is unable to meet its current obligations." The Governor has included the provision in subsequent budget submissions to meet the obligations of the Program, and the General Assembly has included the provision in subsequent Appropriation Acts, including Chapter 2 of the Virginia Acts of Assembly, 2024 Special Session I.

<u>Program Design</u>

VA529 is the program sponsor for the DB529 Program and other education savings programs. The DB529 Program is a prepaid program with defined benefits and no market risk to participants. The other education savings programs, including Invest529 (excluding TTP accounts) and CollegeAmerica, are offered directly from VA529 (Invest529) or through financial advisors (CollegeAmerica) and are subject to market and other risks to the participants.

<u>VA529's Defined Benefit 529 Program</u>

Prepaid529 closed to new participants in 2019. Benefits in this program cover tuition and mandatory fees at Virginia's public higher educational institutions. At redemption, the contract pays the current tuition and mandatory fees at the Virginia public institution that the beneficiary attends. The benefits vary if the beneficiary does not attend a Virginia public institution. With the establishment of Invest529 and other savings programs, contract holders have the option of rolling over the value of their Prepaid529 contract into a savings account. The value of the Prepaid529 contract for such rollovers is the accumulated contributions plus the reasonable rate of interest set by Virginia529. This option to roll over the contract has effectively added a minimum benefit to the Program.

In 2019, The Virginia General Assembly passed legislation that included provisions for Prepaid529 contracts entered prior to July 1, 2019. These provisions allow for the "Minimum Benefit" payout directly from Prepaid529 to qualified higher education institutions when the accumulated contributions at the reasonable rate of interest set by Virginia529 exceeds the normal payout from the program. To address significant increases in higher education tuition, increasing disparity in tuition policies at Virginia's 15 public universities and a desire to make the defined benefit program more affordable and more accessible to more Virginians, the Board permanently closed Prepaid529 to new enrollments as of May 1, 2019 and began to develop its successor defined benefit prepaid program.

In February 2021, TTP was launched as the successor defined benefit option to Prepaid529. This resulted from legislation passed in 2019 by the Virginia General Assembly that included provisions for payments to any qualified higher education institutions based on enrollment-weighted average tuition (Average Tuition) at Virginia's public higher education institutions as determined by the Board.

TTP allows participants to purchase a desired number of units toward tuition and other qualified higher education expenses. The purchased units will keep pace with average tuition inflation at Virginia public universities. When withdrawn, participants will receive one year of then-current Average Tuition for every 100 units purchased (one TTP unit = 1/100 of Average Tuition), regardless of how much Average Tuition has increased since purchase.

TTP is only available for account owners or beneficiaries who are Virginia residents at the time of initial purchase. TTP units can be purchased up until June 30 of the beneficiary's high school graduation year. A maximum of 1,000 Tuition Track units can be held at any one time for a beneficiary. If units are redeemed, more units can be purchased to reach the 1,000-unit cap.

TTP units are eligible for use at Average Tuition value after the units have been held for three years or more and when the beneficiary graduates from high school or begins taking eligible post-secondary courses, whichever comes first. If units are redeemed prior to the beneficiary's high school graduation, they will receive the purchase price plus Tuition Track Interest (same as the reasonable rate of interest for Prepaid529), assuming the units have been held for three or more years. Units that are redeemed before being held for at least three years will be returned at purchase price.

Statutory Requirements

The Code of Virginia, Title 23.1, Subtitle II, Chapter 7 provides limited guidance for establishing the actuarial basis to evaluate VA529's DB529 Program. The Code requires an annual audit of the Program and states in part that if the annual accounting and audit reveal that there are insufficient funds to ensure the "actuarial soundness" of the Program, the "Board may adjust the terms of subsequent prepaid tuition contracts, arrange refunds for current purchasers to ensure actuarial soundness, or take such other action the Board deems appropriate."