

College Illinois!® Prepaid Tuition Program

Supplemental Actuarial Soundness Valuation Report
as of June 30, 2018





December 20, 2018

Mr. Eric Zarnikow
Executive Director
Illinois Student Assistance Commission
1755 Lake Cook Road
Deerfield, Illinois 60015-5209

**Re: College Illinois!® Prepaid Tuition Program
Supplemental Actuarial Soundness Valuation Report as of June 30, 2018**

Dear Mr. Zarnikow:

In accordance with the request of the Illinois Student Assistance Commission ("ISAC"), Gabriel, Roeder, Smith & Company ("GRS") has performed projections of the College Illinois!® Prepaid Tuition Program ("Program" or "CIPTP") under alternative open group and closed group scenarios. The purpose of these projections is to provide additional information to ISAC regarding a range of potential outcomes of different future year contract sales scenarios.

Although program enrollment is currently on hold pending discussions with policymakers, we have provided alternate open group projections assuming new contract sales after June 30, 2018, beginning in fiscal year 2020. Please note that the open group scenarios included in this report (1) were specifically requested by ISAC, (2) are presented for illustrative purposes only and (3) do not consider how increases in contract prices can impact future sales. Because there are many factors that may impact the decision to purchase or not to purchase a prepaid tuition contract in Illinois, including but not limited to (1) increasingly unaffordable college tuition, (2) uncertainty about the state's support and funding for higher education in Illinois, (3) contract prices, (4) the level of contribution premium over the expected costs, and (5) competing savings vehicles, etc., it is very difficult to assess the likelihood of selling a particular number of contracts. Therefore, GRS is unable to judge the reasonableness of these open group contract sales scenarios.

While the closing of the CIPTP has not occurred (although program enrollment is currently on hold), we have also provided an alternate closed group projection assuming no new contract sales after June 30, 2018. Please note that this closed group scenario was specifically requested by ISAC and is also presented for illustrative purposes only.

For purposes of this analysis, we used the actuarial soundness valuation results from the June 30, 2018 Actuarial Soundness Valuation, and unless noted differently, the same actuarial assumptions and methods as used for the June 30, 2018 Actuarial Soundness Valuation.

The projection results summarized in this report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of ISAC. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.

Mr. Eric Zarnikow
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This supplemental report was prepared at the request of ISAC and is intended for use by ISAC and those designated or approved by ISAC. This report may be provided to parties other than ISAC only in its entirety and only with the permission of ISAC. This report should not be relied on for any purpose other than the purpose described above. GRS is not responsible for unauthorized use of this report.

Please understand that future actuarial measurements may differ significantly from the current measurements presented in this analysis due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

This supplemental report is one of multiple documents providing actuarial soundness valuation results for the College Illinois!® Prepaid Tuition Program as of June 30, 2018. Additional information regarding the underlying financial and beneficiary data and important additional disclosures are provided in the June 30, 2018 Actuarial Soundness Valuation. Section D of this report contains a summary of the actuarial assumptions and methods.

This supplemental report is not a recommendation to anyone to participate or not participate in the CIPTP. GRS makes no representations or warranties to any person participating in or considering participation in the CIPTP.

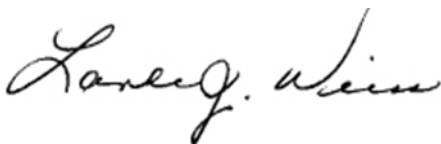
All calculations have been made in conformity with generally accepted actuarial principles and practices commonly applicable to similar types of arrangements. There are currently no Actuarial Standards of Practice which specifically relate to prepaid tuition plans. We have looked to the Actuarial Standards of Practice related to pensions for guidance due to their similar nature.

Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Lance J. Weiss and Amy Williams are independent of ISAC.

Respectfully submitted,

Gabriel, Roeder, Smith and Company



Lance J. Weiss, EA, MAAA, FCA
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SECTION A

BACKGROUND

Background

Purpose of Projections

In accordance with the request of the Illinois Student Assistance Commission (“ISAC”), Gabriel, Roeder, Smith & Company (“GRS”) has performed projections of the College Illinois!® Prepaid Tuition Program (“Program” or “CIPTP”) under alternative open group and closed group scenarios. The purpose of these projections is to provide additional information to ISAC regarding a range of potential outcomes of different future year contract sales scenarios.

There are currently no Actuarial Standards of Practice which specifically relate to prepaid tuition plans. We have looked to the Actuarial Standards of Practice related to pensions for guidance due to their similar nature.

The Actuarial Standards Board (ASB) recently adopted Actuarial Standards of Practice (ASOP) No. 51, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*. ASOP No. 51 provides guidance to actuaries with regard to the assessment and disclosure of the risk that actual future measurements may differ significantly from expected future measurements when measuring obligations under a defined benefit pension plan and calculating actuarially determined contributions for such plans. The standard will be effective for any actuarial work product with a measurement date on or after November 1, 2018. Future supplemental projection reports for CIPTP may contain additional risk metrics, projections or calculations in accordance with guidance from ASOP No. 51 due to the similar nature of prepaid tuition plans to pension plans.

Illustrative Open and Closed Group Scenarios

Although program enrollment is currently on hold pending discussions with policymakers, we have provided alternate open group projections assuming new contract sales after June 30, 2018, beginning in fiscal year 2020. Please note that the open group scenarios included in this report (1) were specifically requested by ISAC, (2) are presented for illustrative purposes only and (3) do not consider how increases in contract prices can impact future sales. Because there are many factors that may impact the decision to purchase or not to purchase a prepaid tuition contract in Illinois, including but not limited to (1) increasingly unaffordable college tuition, (2) uncertainty about the state’s support and funding for higher education in Illinois, (3) contract prices, (4) the level of contribution premium over the expected costs, and (5) competing savings vehicles, etc., it is very difficult to assess the likelihood of selling a particular number of contracts. Therefore, GRS is unable to judge the reasonableness of these open group contract scenarios.

While the closing of the CIPTP has not occurred (although program enrollment is currently on hold), we have also provided an alternate closed group projection assuming no new contract sales after June 30, 2018. Please note that this closed group scenario was specifically requested by ISAC and is also presented for illustrative purposes only.

Historical Number of Contracts Sold by Enrollment Year

The chart on page D-1 in Section D of the June 30, 2018 Actuarial Soundness Valuation Report illustrates the number of contracts sold by enrollment year.

As this chart indicates, the number of contracts sold has decreased significantly during the last five enrollment years from the number sold per year in previous years.

- The average annual number of contracts sold beginning with the enrollment period 1999/2000 and ending with the enrollment period 2009/2010 was 5,235.
- The average annual number of contracts sold during the last seven-year period 2010/2011 to 2016/2017 was 559 including 2011/2012 when the plan was not open for new contract sales.
- The average annual number of contracts sold during the last seven-year period 2010/2011 to 2016/2017 was 652 excluding 2011/2012 when the plan was not open for new contract sales.
- Program enrollment was placed on hold commencing with the 2017/2018 enrollment period. Therefore, there were zero contracts sold during the 2017/2018 enrollment period and expected to be sold during the 2018/2019 enrollment period.

Projection Assumptions

The projection results summarized in this supplemental report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of ISAC. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.

For purposes of this analysis, we used the actuarial soundness valuation results from the June 30, 2018 Actuarial Soundness Valuation, and unless noted differently, the same actuarial assumptions and methods as used for the June 30, 2018 Actuarial Soundness Valuation. The contract prices for future new contracts were based on the prices for the most recent enrollment period from January 18, 2017 through May 31, 2017 increased by actual tuition and fee increases for fiscal years 2018 and 2019, and are assumed to increase each year by the tuition and fee increase assumption thereafter. The contract prices for the enrollment period from January 18, 2017, through May 31, 2017 were based on different investment return and tuition and fee increase assumptions than the assumptions used for the Actuarial Soundness Valuation as of June 30, 2018. (We have not recalculated prices for future contracts using the current assumptions for purposes of the open-group projections.)

For the June 30, 2018 Actuarial Soundness Valuation, and for those projection scenarios where the Trust assets are depleted in the future and the funded ratio remains low thereafter, we have incorporated a “select and ultimate” approach to the investment return assumption (and also the related discount rate for the liabilities). Under this “select and ultimate” approach to the investment return assumption, we have assumed that the net investment return and discount rate grade down from 6.25% to 3.75% in yearly increments based on the number of years until the Trust assets are projected to be depleted and are no longer available to pay benefits. Implicit in this approach is the assumption that once the Trust is completely exhausted, and ISAC is relying on additional payments from the State of Illinois, the State will be making payments to the College Illinois!® Prepaid Tuition Program from the State Portfolio. (The State Portfolio has assets of approximately \$12-\$14 billion, and provides the necessary liquidity to meet the state’s daily obligations while investing remaining funds in authorized short/long-term investment opportunities.) Based on input from ISAC, we have assumed that the underlying return on such assets in the State Portfolio is 3.75%.

Important Disclosure

This supplemental report is not a recommendation to anyone to participate or not participate in the CIPTP. GRS makes no representations or warranties to any person or persons participating in or considering participation in the CIPTP.

SECTION B

PROJECTION RESULTS

Discussion of Scenario Results

Scenario 1 – Closed Group -- Run-Off Scenario; Zero New Contracts Sold Per Year

Under this illustrative closed group scenario, we have assumed that the program continues to operate but with no new contract sales after June 30, 2018. Under this scenario, future payments from current contract holders, current Trust assets and future investment income are projected to be insufficient by the year 2026 to make the required tuition payments and additional funds will be required to maintain solvency (\$501.2 million for the period 2026 to 2053). The CIPTP funded status is projected to decrease from 73.3% in 2018 to 0.5% in 2026 (when additional solvency contributions are required) and then remain at about 0.0% for the remaining years in the projection period.

Under this scenario, the Trust assets are projected to be depleted in 2026. Therefore, we have incorporated a “select and ultimate” approach to the investment return assumption (and also the related discount rate for the liabilities). Under this “select and ultimate” approach to the investment return assumption, we have assumed that the net investment return and discount rate grade down from 6.25% for year ending June 30, 2019 to 3.75% beginning for year ending June 30, 2026, in equal yearly increments of 0.357%.

Scenario 2 – Open Group -- 500 New Contracts Sold Per Year

Scenario 2 illustrates the results of an open group projection scenario assuming 500 new contracts are sold each year, beginning in fiscal year 2020. Under this illustrative new contract sales assumption, future payments from current and future contract holders, current Trust assets and future investment income are projected to be insufficient to make the required tuition payments in the year 2026 and additional funds will be required to maintain solvency (\$405.1 million for the period 2026 to 2055). The CIPTP funded status is projected to decrease from 73.3% in 2018 to a low of 6.9% in 2026 (when additional solvency contributions are required) and then very slowly increase to only 14.8% in 2055.

Under this scenario, the Trust assets are projected to be depleted in 2026, and the funded ratio remains low for the remaining years in the projection period. Therefore, we have incorporated a “select and ultimate” approach to the investment return assumption (and also the related discount rate for the liabilities). Under this “select and ultimate” approach to the investment return assumption, we have assumed that the net investment return and discount rate grade down from 6.25% for year ending June 30, 2019 to 3.75% beginning for year ending June 30, 2026, in equal yearly increments of 0.357%.

Scenario 3 – Open Group -- 1,000 New Contracts Sold Per Year

Scenario 3 illustrates the results of an open group projection scenario assuming 1,000 new contracts are sold each year, beginning in fiscal year 2020. Under this illustrative new contract sales assumption, future payments from current and future contract holders, current Trust assets and future investment income are projected to be insufficient to make the required tuition payments in the year 2028 and additional funds will be required to maintain solvency (\$101.4 million for the period 2028 to 2032). The CIPTP funded status is projected to decrease from 74.0% in 2018 to a low of 13.1% in 2028 (when additional solvency contributions are required) and then very slowly increase to only 25.7% in 2055.

Under this scenario, the Trust assets are projected to be depleted in 2028, and the funded ratio remains low for the remaining years in the projection period. Therefore, we have incorporated a “select and

ultimate” approach to the investment return assumption (and also the related discount rate for the liabilities). Under this “select and ultimate” approach to the investment return assumption, we have assumed that the net investment return and discount rate grade down from 6.25% for year ending June 30, 2018 to 3.75% beginning for year ending June 30, 2028, in equal yearly increments of 0.278%.

Scenario 4 – Open Group -- 1,500 New Contracts Sold Per Year

Scenario 4 illustrates the results of an open group projection scenario assuming 1,500 new contracts are sold each year, beginning in fiscal year 2020. Under this illustrative new contract sales assumption, future payments from current and future contract holders, current Trust assets and future investment income are projected to be sufficient to make the required tuition payments in all projection years. The CIPTP funded status is projected to decrease from 77.3% in 2018 to a low of 36.6% in 2029 before increasing to 76.1% in 2055.

Under this scenario, the Trust assets are not projected to be depleted during the projection period. Therefore, we have used a flat investment return (and discount rate) assumption of 6.25% for this projection scenario. This assumes that ISAC is able to maintain the current asset allocation throughout the entire projection period.

Scenario 5 – Open Group -- 2,500 New Contracts Sold Per Year

Scenario 5 illustrates the results of an open group projection scenario assuming 2,500 new contracts are sold each year, beginning in fiscal year 2020. Under this illustrative new contract sales assumption, future payments from current and future contract holders, current Trust assets and future investment income are projected to be sufficient to make the required tuition payments in all projection years. However, the CIPTP funded status is projected to decrease from 77.3% in 2018 to a low of 59.2% in 2025 before increasing to 126.7% in 2055. The funded status is projected to first reach 100% in 2044.

Under this scenario, the Trust assets are not projected to be depleted during the projection period. Therefore, we have used a flat investment return (and discount rate) assumption of 6.25% for this projection scenario. This assumes that ISAC is able to maintain the current asset allocation throughout the entire projection period.

Scenario 6 – Open Group -- 5% Annual Contract Sales Growth from 500 Contracts Sold in FY20 to 2,500 Contracts Sold and then Stable at 2,500 Contracts Per Year

Scenario 6 illustrates the results of an open group projection scenario assuming 500 new contracts are sold in 2020 and then the number of new contract sales increases by 5.0% each year to 2,500 new contracts sold in 2053 and each future year. Under this illustrative new contract sales assumption, future payments from current and future contract holders, current Trust assets and future investment income are projected to be insufficient to make the required tuition payments in years 2027 through 2032 and additional solvency contributions will be required to maintain solvency (\$207.8 million for the period 2027 to 2032). The CIPTP funded status is projected to decrease from 77.3% in 2018 to a low of 10.2% in 2027 (and additional solvency contributions are required) before increasing to 93.1% in 2055.

Under this scenario, the Trust assets are projected to be depleted in 2027. However, because additional solvency contributions are only required for six years before the funded status is projected to increase, we have used a flat investment return (and discount rate) assumption of 6.25% for this projection

scenario. This assumes that ISAC is able to maintain the current asset allocation throughout most of the projection period.

Scenario 7 – Open Group -- 10% Annual Contract Sales Growth from 500 Contracts Sold in FY20 to 2,500 Contracts Sold and then Stable at 2,500 Contracts Per Year

Scenario 7 illustrates the results of an open group projection scenario assuming 500 new contracts are sold in 2020 and then the number of new contract sales increases by 10.0% each year to 2,500 new contracts sold in 2037 and each future year. Under this illustrative new contract sales assumption, future payments from current and future contract holders, Trust assets and future investment income are projected to be insufficient to make the required tuition payments in years 2027 through 2030 and additional solvency contributions will be required to maintain solvency (\$130.0 million for the period 2027 through 2030). The CIPTP funded status is projected to decrease from 77.3% in 2018 to a low of 12.2% in 2027 (and additional solvency contributions are required) before increasing to 111.3% in 2055. The funded status is projected to first reach 100% in 2051.

Under this scenario, the Trust assets are projected to be depleted in 2027. However, because additional solvency contributions are only required for four years before the funded status is projected to increase, we have used a flat investment return (and discount rate) assumption of 6.25% for this projection scenario. This assumes that ISAC is able to maintain the current asset allocation throughout most of the projection period.

Scenario 8 – Open Group -- 15% Annual Contract Sales Growth from 500 Contracts Sold in FY20 to 2,500 Contracts Sold and then Stable at 2,500 Contracts Per Year

Scenario 8 illustrates the results of an open group projection scenario assuming 500 new contracts are sold in 2020 and then the number of new contract sales increases by 15.0% each year to 2,500 new contracts sold in 2032 and each future year. Under this illustrative new contract sales assumption, future payments from current and future contract holders, Trust assets and future investment income are projected to be insufficient to make the required tuition payments in years 2027 through 2029 and additional solvency contributions will be required to maintain solvency (\$65.2 million for the period 2027 through 2029). The CIPTP funded status is projected to decrease from 77.3% in 2018 to a low of 14.3% in 2027 (and additional solvency contributions are required) before increasing to 112.6% in 2055. The funded status is projected to first reach 100% in 2050.

Under this scenario, the Trust assets are projected to be depleted in 2027. However, because additional solvency contributions are only required for three years before the funded status is projected to increase, we have used a flat investment return (and discount rate) assumption of 6.25% for this projection scenario. This assumes that ISAC is able to maintain the current asset allocation throughout most of the projection period.

Summary

Under the scenarios in which 2,500 contracts are assumed to ultimately be sold each year (Scenarios 5 through 8), the funded status is projected to reach 90% or higher during the projection period.

Summary Table

Scenario	Scenario Description	Discount Rate/Type	Tuition/Fee Increase	Year of Asset Depletion	Required Solvency Contributions	Funded Ratio			Funded Ratio Year	
						2018	2055	Minimum	Minimum	100%
1	Closed Group (Run-Off)	Select and Ultimate	5.00%	2026	\$ 501,243,688	73.3%	0.0%	0.0%	2032	NA
2	Open Group (500 New Contracts Per Year)	Select and Ultimate	5.00%	2026	\$ 405,070,701	73.3%	14.8%	6.9%	2026	NA
3	Open Group (1,000 New Contracts Per Year)	Select and Ultimate	5.00%	2028	\$ 101,396,923	74.0%	25.7%	13.1%	2028	NA
4	Open Group (1,500 New Contracts Per Year)	6.25%	5.00%	NA	\$ -	77.3%	76.1%	36.6%	2029	NA
5	Open Group (2,500 New Contracts Per Year)	6.25%	5.00%	NA	\$ -	77.3%	126.7%	59.2%	2025	2044
6	Open Group (5% Annual Growth)*	6.25%	5.00%	2027	\$ 207,791,463	77.3%	93.1%	10.2%	2027	NA
7	Open Group (10% Annual Growth)*	6.25%	5.00%	2027	\$ 130,018,635	77.3%	111.3%	12.2%	2027	2051
8	Open Group (15% Annual Growth)*	6.25%	5.00%	2027	\$ 65,246,786	77.3%	112.6%	14.3%	2027	2050

*500 contracts assumed to be sold in FY 2020, with an annual increase in contract sales until a maximum of 2,500 contracts per year are sold annually.

Scenario Summary - Projected Funded Ratio
Projection Based on Data as of June 30, 2018
Assumed Net Investment Return and Discount Rates Vary by Scenario
Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

Scenario Description		1 Closed Group	2 Open Group	3 Open Group	4 Open Group	5 Open Group	6 Open Group ^a	7 Open Group ^a	8 Open Group ^a
Annual New Contracts		0	500	1,000	1,500	2,500	500	500	500
Increase in Annual New Contracts							5%	10%	15%
Annual WAT/Price Increase		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Ultimate Discount Rate (UDR)		3.75%	3.75%	3.75%	6.25%	6.25%	6.25%	6.25%	6.25%
Year of Asset Depletion		2026	2026	2028	NA	NA	2027	2027	2027
Year Ending 6/30	2018	73.3%	73.3%	74.0%	77.3%	77.3%	77.3%	77.3%	77.3%
	2019	69.4%	69.4%	70.1%	73.7%	73.7%	73.7%	73.7%	73.7%
	2020	64.5%	63.4%	64.0%	67.9%	67.6%	68.2%	68.2%	68.2%
	2021	58.2%	57.3%	58.6%	64.0%	65.3%	62.5%	62.5%	62.5%
	2022	49.8%	49.6%	52.3%	59.5%	63.0%	55.4%	55.5%	55.5%
	2023	39.0%	40.6%	45.3%	54.8%	61.0%	46.9%	47.2%	47.5%
	2024	25.1%	30.1%	37.9%	50.3%	59.6%	37.1%	37.9%	38.7%
	2025	5.7%	17.7%	30.1%	46.0%	59.2%	25.5%	27.3%	29.2%
	2026	0.5%	6.9%	22.3%	42.2%	59.4%	12.5%	16.1%	20.0%
	2027	0.4%	8.2%	14.9%	39.2%	60.5%	10.2%	12.2%	14.3%
	2028	0.4%	9.4%	13.1%	37.4%	62.3%	12.1%	14.5%	17.1%
	2029	0.3%	10.6%	14.0%	36.6%	64.6%	14.0%	16.9%	19.9%
	2030	0.1%	11.7%	14.7%	36.9%	67.2%	15.6%	18.8%	23.2%
	2031	0.1%	12.5%	15.1%	38.0%	70.0%	16.9%	20.7%	29.1%
	2032	0.0%	13.2%	15.3%	39.6%	72.8%	17.9%	24.8%	36.4%
	2033	0.0%	13.6%	15.5%	41.5%	75.6%	19.1%	30.2%	43.6%
	2034	0.0%	13.9%	16.0%	43.4%	78.2%	21.3%	36.2%	49.9%
	2035	0.0%	14.1%	16.7%	45.4%	80.8%	24.3%	42.4%	55.5%
	2036	0.0%	14.2%	17.5%	47.2%	83.2%	27.8%	48.7%	60.6%
	2037	0.0%	14.3%	18.3%	49.0%	85.6%	31.4%	54.7%	65.0%
	2038	0.0%	14.3%	19.0%	50.8%	87.9%	35.2%	60.4%	69.0%
	2039	0.0%	14.3%	19.6%	52.4%	90.2%	39.0%	65.4%	72.6%
	2040	0.0%	14.3%	20.2%	53.9%	92.4%	42.8%	69.8%	75.9%
	2041	0.0%	14.4%	20.6%	55.4%	94.6%	46.6%	73.7%	79.0%
	2042	0.0%	14.4%	21.0%	56.7%	96.7%	50.2%	77.3%	81.8%
	2043	0.0%	14.4%	21.3%	58.1%	98.9%	53.9%	80.6%	84.4%
	2044	0.0%	14.4%	21.7%	59.5%	101.0%	57.5%	83.7%	87.0%
	2045	0.0%	14.5%	22.0%	60.8%	103.2%	61.0%	86.6%	89.4%
	2046	0.0%	14.5%	22.3%	62.2%	105.4%	64.5%	89.3%	91.8%
	2047	0.0%	14.5%	22.6%	63.6%	107.6%	67.9%	91.9%	94.1%
	2048	0.0%	14.6%	22.9%	65.1%	109.9%	71.2%	94.4%	96.4%
	2049	0.0%	14.6%	23.3%	66.6%	112.2%	74.5%	96.9%	98.7%
	2050	0.0%	14.6%	23.7%	68.1%	114.5%	77.8%	99.3%	101.0%
	2051	0.0%	14.7%	24.0%	69.6%	116.9%	80.9%	101.7%	103.3%
	2052	0.0%	14.7%	24.4%	71.2%	119.3%	84.0%	104.1%	105.6%
	2053	0.0%	14.7%	24.8%	72.8%	121.7%	87.1%	106.5%	107.9%
	2054	0.0%	14.7%	25.3%	74.4%	124.2%	90.2%	108.9%	110.2%
	2055	0.0%	14.8%	25.7%	76.1%	126.7%	93.1%	111.3%	112.6%
Minimum Funded Ratio		0.0%	6.9%	13.1%	36.6%	59.2%	10.2%	12.2%	14.3%

^a 500 contracts assumed to be sold in FY 2020, with an annual increase in contract sales until a maximum of 2,500 contracts per year are sold annually.

Scenario Summary - Projected Additional Required Solvency Contributions
Projection Based on Data as of June 30, 2018
Assumed Net Investment Return and Discount Rates Vary by Scenario
Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

Scenario Description	1 Closed Group	2 Open Group	3 Open Group	4 Open Group	5 Open Group	6 Open Group ^a	7 Open Group ^a	8 Open Group ^a
Annual New Contracts	0	500	1,000	1,500	2,500	500	500	500
Increase in Annual New Contracts						5%	10%	15%
Annual WAT/Price Increase	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Ultimate Discount Rate (UDR)	3.75%	3.75%	3.75%	6.25%	6.25%	6.25%	6.25%	6.25%
Year of Asset Depletion	2026	2026	2028	NA	NA	2027	2027	2027
Year Ending 6/30	2018	2018	2018	2018	2018	2018	2018	2018
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-
2026	80,542,379	18,604,533	-	-	-	-	-	-
2027	92,083,192	80,158,475	-	-	-	53,655,325	33,535,392	10,136,567
2028	75,808,574	64,306,966	27,013,285	-	-	57,467,571	48,551,321	37,047,040
2029	64,612,146	53,803,599	36,049,811	-	-	45,321,812	33,723,123	18,063,179
2030	49,140,801	39,265,895	21,956,495	-	-	28,982,652	14,208,799	-
2031	37,509,474	28,711,837	12,047,210	-	-	16,465,817	-	-
2032	27,961,764	20,274,414	4,330,122	-	-	5,898,286	-	-
2033	20,950,425	14,444,671	-	-	-	-	-	-
2034	15,446,964	10,214,255	-	-	-	-	-	-
2035	11,489,857	7,397,064	-	-	-	-	-	-
2036	8,454,037	5,552,314	-	-	-	-	-	-
2037	5,909,165	4,075,516	-	-	-	-	-	-
2038	4,104,650	3,243,309	-	-	-	-	-	-
2039	2,782,556	3,088,437	-	-	-	-	-	-
2040	1,735,927	3,108,803	-	-	-	-	-	-
2041	1,062,469	3,260,444	-	-	-	-	-	-
2042	694,848	3,498,313	-	-	-	-	-	-
2043	419,562	3,645,702	-	-	-	-	-	-
2044	255,639	3,733,338	-	-	-	-	-	-
2045	136,615	3,730,246	-	-	-	-	-	-
2046	90,630	3,723,038	-	-	-	-	-	-
2047	25,848	3,628,495	-	-	-	-	-	-
2048	13,728	3,534,081	-	-	-	-	-	-
2049	6,950	3,421,164	-	-	-	-	-	-
2050	3,235	3,274,616	-	-	-	-	-	-
2051	1,460	3,100,931	-	-	-	-	-	-
2052	597	2,907,727	-	-	-	-	-	-
2053	196	2,694,697	-	-	-	-	-	-
2054	-	2,461,238	-	-	-	-	-	-
2055	-	2,206,583	-	-	-	-	-	-
Total	501,243,688	405,070,701	101,396,923	-	-	207,791,463	130,018,635	65,246,786

^a 500 contracts assumed to be sold in FY 2020, with an annual increase in contract sales until a maximum of 2,500 contracts per year are sold annually.

SECTION C

ALTERNATIVE SCENARIOS PROJECTION TABLES

Closed Group Projections

Scenario 1 — Run-Off Scenario

Projection Based on Data as of June 30, 2018

Assumed Net Investment Return and Discount Rates Graded Down from 6.25% to 3.75% in 0.357% Yearly Increments

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

Zero New Contracts Per Year

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					Unfunded Liability	Funded Ratio
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses			
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 33,033,617	\$ 846,398,622	\$ 1,125,284,937	\$ 28,825,358	\$ 1,154,110,294	\$ 307,711,672	73.3%	
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	24,292,470	739,864,481	1,040,739,284	26,068,849	1,066,808,133	326,943,652	69.4%	
2020	5.893%	0	7,534,932	-	145,963,226	4,532,550	38,016,612	610,627,779	17,970,255	628,598,034	951,867,579	22,940,896	974,808,475	346,210,441	64.5%	
2021	5.536%	0	5,637,849	-	146,390,225	4,249,140	29,844,774	495,471,037	13,173,285	508,644,322	854,175,242	19,845,732	874,020,974	365,376,652	58.2%	
2022	5.179%	0	4,667,453	-	145,690,793	3,908,367	21,954,812	372,494,142	9,068,739	381,562,881	748,997,143	16,865,246	765,862,389	384,299,508	49.8%	
2023	4.822%	0	3,201,900	-	135,301,933	3,512,792	14,730,535	251,611,852	6,227,844	257,839,696	646,588,127	14,082,000	660,670,127	402,830,431	39.0%	
2024	4.465%	0	2,252,346	-	122,494,864	3,108,307	8,510,734	136,771,762	4,203,837	140,975,599	550,258,588	11,533,819	561,792,407	420,816,808	25.1%	
2025	4.108%	0	1,436,498	-	114,995,338	2,711,358	3,254,430	23,755,994	2,910,824	26,666,818	455,529,640	9,241,140	464,770,780	438,103,962	5.7%	
2026	3.750%	0	983,442	80,542,379	103,422,437	2,300,703	441,326	-	2,018,268	2,018,268	367,268,240	7,244,239	374,512,480	372,494,212	0.5%	
2027	3.750%	0	766,447	92,083,192	90,948,337	1,901,302	-	-	1,313,267	1,313,267	288,402,875	5,579,275	293,982,150	292,668,883	0.4%	
2028	3.750%	0	525,757	75,808,574	74,803,980	1,530,351	-	-	826,991	826,991	223,024,337	4,229,716	227,254,053	226,427,062	0.4%	
2029	3.750%	0	393,923	64,612,146	63,793,050	1,213,019	-	-	456,762	456,762	166,409,588	3,152,777	169,562,365	169,105,603	0.3%	
2030	3.750%	0	286,949	49,140,801	48,500,028	927,722	-	-	181,610	181,610	123,248,913	2,326,050	125,574,963	125,393,353	0.1%	
2031	3.750%	0	129,215	37,509,474	36,934,408	704,281	-	-	56,805	56,805	90,250,193	1,695,911	91,946,104	91,889,299	0.1%	
2032	3.750%	0	55,079	27,961,764	27,488,233	528,610	-	-	2,833	2,833	65,635,681	1,221,078	66,856,759	66,853,926	0.0%	
2033	3.750%	0	2,886	20,950,425	20,559,262	394,050	-	-	-	-	47,155,819	865,498	48,021,318	48,021,318	0.0%	
2034	3.750%	0	-	15,446,964	15,156,782	290,182	-	-	-	-	33,485,806	602,382	34,088,188	34,088,188	0.0%	
2035	3.750%	0	-	11,489,857	11,278,645	211,212	-	-	-	-	23,253,351	409,835	23,663,186	23,663,186	0.0%	
2036	3.750%	0	-	8,454,037	8,303,699	150,338	-	-	-	-	15,667,391	272,073	15,939,464	15,939,464	0.0%	
2037	3.750%	0	-	5,909,165	5,805,340	103,825	-	-	-	-	10,341,730	176,522	10,518,252	10,518,252	0.0%	
2038	3.750%	0	-	4,104,650	4,034,404	70,246	-	-	-	-	6,620,192	111,590	6,731,782	6,731,782	0.0%	
2039	3.750%	0	-	2,782,556	2,736,464	46,092	-	-	-	-	4,081,148	68,827	4,149,975	4,149,975	0.0%	
2040	3.750%	0	-	1,735,927	1,706,803	29,125	-	-	-	-	2,495,681	41,742	2,537,422	2,537,422	0.0%	
2041	3.750%	0	-	1,062,469	1,044,214	18,255	-	-	-	-	1,525,656	24,713	1,550,369	1,550,369	0.0%	
2042	3.750%	0	-	694,848	683,409	11,439	-	-	-	-	886,763	13,988	900,751	900,751	0.0%	
2043	3.750%	0	-	419,562	412,747	6,815	-	-	-	-	499,602	7,571	507,173	507,173	0.0%	
2044	3.750%	0	-	255,639	251,704	3,935	-	-	-	-	261,957	3,847	265,804	265,804	0.0%	
2045	3.750%	0	-	136,615	134,500	2,115	-	-	-	-	134,782	1,836	136,619	136,619	0.0%	
2046	3.750%	0	-	90,630	89,515	1,115	-	-	-	-	48,659	769	49,428	49,428	0.0%	
2047	3.750%	0	-	25,848	25,435	413	-	-	-	-	24,576	377	24,953	24,953	0.0%	
2048	3.750%	0	-	13,728	13,514	214	-	-	-	-	11,732	174	11,906	11,906	0.0%	
2049	3.750%	0	-	6,950	6,845	105	-	-	-	-	5,200	74	5,274	5,274	0.0%	
2050	3.750%	0	-	3,235	3,187	48	-	-	-	-	2,149	28	2,177	2,177	0.0%	
2051	3.750%	0	-	1,460	1,440	20	-	-	-	-	763	9	772	772	0.0%	
2052	3.750%	0	-	597	590	7	-	-	-	-	190	2	192	192	0.0%	
2053	3.750%	0	-	196	194	2	-	-	-	-	-	-	-	-	0.0%	
2054	3.750%	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	
2055	3.750%	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	

^a Additional contributions in the amount of \$501,243,688 are needed over the years 2026 through 2053 to pay all benefits due.

Open Group Projections

Scenario 2 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

Assumed Net Investment Return and Discount Rates Graded Down from 6.25% to 3.75% in 0.357% Yearly Increments

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

500 New Contracts Per Year Beginning in FY 2020

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					Unfunded Liability	Funded Ratio
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses			
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 33,033,617	\$ 846,398,622	\$ 1,125,284,937	\$ 28,825,358	\$ 1,154,110,294	\$ 307,711,672	73.3%	
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	24,292,470	739,864,481	1,040,739,284	26,068,849	1,066,808,133	326,943,652	69.4%	
2020	5.893%	500	7,534,932	-	145,963,226	6,532,550	37,958,525	608,569,692	25,616,067	634,185,759	967,667,802	32,220,107	999,887,909	365,702,150	63.4%	
2021	5.536%	500	14,909,212	-	146,411,436	6,695,864	29,916,621	500,288,225	27,691,927	527,980,152	887,436,971	34,054,172	921,491,143	393,510,991	57.3%	
2022	5.179%	500	16,011,311	-	145,981,490	6,863,260	22,411,351	385,866,137	29,584,485	415,450,622	801,346,282	35,697,135	837,043,417	421,592,795	49.6%	
2023	4.822%	500	16,675,040	-	135,887,422	7,034,842	15,598,479	275,217,392	31,751,800	306,969,192	719,600,486	37,187,458	756,787,944	449,818,752	40.6%	
2024	4.465%	500	17,923,158	-	123,388,056	7,210,713	9,800,443	172,342,225	33,623,123	205,965,348	645,145,054	38,759,661	683,904,715	477,939,367	30.1%	
2025	4.108%	500	19,383,804	-	116,489,762	7,390,981	4,955,053	72,800,339	35,868,183	108,668,522	573,307,954	40,251,058	613,559,012	504,890,490	17.7%	
2026	3.750%	500	20,423,444	18,604,533	105,605,004	7,575,756	1,352,444	-	38,176,334	38,176,334	508,577,693	41,521,715	550,099,409	511,923,075	6.9%	
2027	3.750%	500	21,664,640	80,158,475	94,057,966	7,765,149	-	-	40,467,105	40,467,105	452,507,060	42,502,004	496,399,064	455,931,959	8.2%	
2028	3.750%	500	22,884,344	64,306,966	79,232,033	7,959,277	-	-	42,820,932	42,820,932	413,111,250	43,495,188	456,606,438	413,785,506	9.4%	
2029	3.750%	500	24,214,058	53,803,599	69,859,397	8,158,260	-	-	45,204,689	45,204,689	381,312,755	44,189,639	425,502,394	380,297,705	10.6%	
2030	3.750%	500	25,554,539	39,265,895	56,458,217	8,362,217	-	-	47,640,435	47,640,435	363,039,719	44,751,821	407,791,540	360,151,105	11.7%	
2031	3.750%	500	26,861,763	28,711,837	47,002,329	8,571,271	-	-	50,209,766	50,209,766	345,277,821	45,277,281	400,228,156	350,018,390	12.5%	
2032	3.750%	500	28,291,216	20,274,414	39,780,076	8,785,554	-	-	52,855,993	52,855,993	355,180,765	45,905,336	401,086,101	348,230,108	13.2%	
2033	3.750%	500	29,788,952	14,444,671	35,228,431	9,005,193	-	-	55,573,920	55,573,920	361,369,732	46,568,710	407,938,443	352,364,523	13.6%	
2034	3.750%	500	31,394,821	10,214,255	32,378,754	9,230,322	-	-	58,352,616	58,352,616	372,335,726	47,359,796	419,695,522	361,342,906	13.9%	
2035	3.750%	500	33,044,114	7,397,064	30,980,098	9,461,080	-	-	61,270,246	61,270,246	386,715,979	48,243,760	434,959,739	373,689,493	14.1%	
2036	3.750%	500	34,696,320	5,552,314	30,551,027	9,697,607	-	-	64,333,759	64,333,759	403,833,388	49,206,112	453,039,500	388,705,741	14.2%	
2037	3.750%	500	36,431,136	4,075,516	30,566,605	9,940,047	-	-	67,550,447	67,550,447	423,393,763	50,422,787	473,816,550	406,266,103	14.3%	
2038	3.750%	500	38,252,693	3,243,309	31,307,454	10,188,548	-	-	70,927,969	70,927,969	444,543,942	51,810,205	496,354,147	425,426,178	14.3%	
2039	3.750%	500	40,165,327	3,088,437	32,810,502	10,443,262	-	-	74,474,367	74,474,367	466,960,876	53,268,852	520,229,728	445,755,361	14.3%	
2040	3.750%	500	42,173,594	3,108,803	34,578,054	10,704,344	-	-	78,198,086	78,198,086	490,663,394	54,768,880	545,432,273	467,234,187	14.3%	
2041	3.750%	500	44,282,273	3,260,444	36,570,765	10,971,952	-	-	82,107,990	82,107,990	515,549,834	56,296,253	571,846,087	489,738,097	14.4%	
2042	3.750%	500	46,496,387	3,498,313	38,748,449	11,246,251	-	-	86,213,390	86,213,390	541,545,696	57,823,814	599,369,510	513,156,120	14.4%	
2043	3.750%	500	48,821,206	3,645,702	40,939,500	11,527,408	-	-	90,524,059	90,524,059	568,777,846	59,343,556	628,121,402	537,597,343	14.4%	
2044	3.750%	500	51,262,267	3,733,338	43,180,013	11,815,592	-	-	95,050,262	95,050,262	597,322,675	60,864,241	658,186,916	563,136,654	14.4%	
2045	3.750%	500	53,825,380	3,730,246	45,444,644	12,110,982	-	-	99,802,775	99,802,775	627,267,167	62,390,819	689,657,987	589,855,212	14.5%	
2046	3.750%	500	56,516,649	3,723,038	47,825,930	12,413,757	-	-	104,792,914	104,792,914	658,664,465	63,923,338	722,587,803	617,794,889	14.5%	
2047	3.750%	500	59,342,481	3,628,495	50,246,875	12,724,101	-	-	110,032,560	110,032,560	691,646,243	65,479,775	757,126,018	647,093,458	14.5%	
2048	3.750%	500	62,309,605	3,534,081	52,801,482	13,042,204	-	-	115,534,188	115,534,188	726,247,775	67,061,840	793,309,615	677,775,427	14.6%	
2049	3.750%	500	65,425,086	3,421,164	55,477,991	13,368,259	-	-	121,310,897	121,310,897	762,566,603	68,681,198	831,247,801	709,936,904	14.6%	
2050	3.750%	500	68,696,340	3,274,616	58,268,490	13,702,466	-	-	127,376,442	127,376,442	800,698,505	70,347,188	871,045,693	743,669,251	14.6%	
2051	3.750%	500	72,131,157	3,100,931	61,187,061	14,045,027	-	-	133,745,264	133,745,264	840,735,210	72,065,998	912,801,208	779,055,944	14.7%	
2052	3.750%	500	75,737,715	2,907,727	64,249,290	14,396,152	-	-	140,432,527	140,432,527	882,772,806	73,841,241	956,614,047	816,181,520	14.7%	
2053	3.750%	500	79,524,601	2,694,697	67,463,242	14,756,056	-	-	147,454,153	147,454,153	926,911,821	75,673,466	1,002,585,287	855,131,134	14.7%	
2054	3.750%	500	83,500,831	2,461,238	70,837,111	15,124,958	-	-	154,826,861	154,826,861	973,257,593	77,564,810	1,050,822,403	895,995,542	14.7%	
2055	3.750%	500	87,675,872	2,206,583	74,379,373	15,503,082	-	-	162,568,204	162,568,204	1,021,920,504	79,515,962	1,101,436,466	938,868,262	14.8%	

^a Additional contributions in the amount of \$405,070,701 are needed over the years 2026 through 2055 to pay all benefits due.

Open Group Projections

Scenario 3 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

Assumed Net Investment Return and Discount Rates Graded Down from 6.25% to 3.75% in 0.278% Yearly Increments

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

1,000 New Contracts Per Year Beginning in FY 2020

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses	Unfunded Liability	Funded Ratio
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,922,430	\$ 846,287,435	\$ 1,114,971,113	\$ 28,600,488	\$ 1,143,571,601	\$ 297,284,166	74.0%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	24,174,334	739,746,345	1,029,780,846	25,829,925	1,055,610,772	315,864,427	70.1%
2020	5.972%	1,000	7,534,932	-	145,963,226	6,532,550	38,468,194	609,079,361	33,028,848	642,108,209	971,963,762	31,969,179	1,003,932,941	361,824,732	64.0%
2021	5.694%	1,000	24,180,574	-	146,432,647	6,695,864	31,060,653	511,192,077	41,858,149	553,050,226	909,306,379	33,805,914	943,112,293	390,062,067	58.6%
2022	5.416%	1,000	27,355,170	-	146,272,188	6,863,260	24,324,944	409,736,743	49,641,196	459,377,939	843,043,342	35,453,735	878,497,077	419,119,138	52.3%
2023	5.138%	1,000	30,148,181	-	136,472,910	7,034,842	18,176,543	314,553,715	56,744,972	371,298,687	783,303,938	36,946,130	820,250,067	448,951,380	45.3%
2024	4.860%	1,000	33,593,970	-	124,281,248	7,210,713	12,936,612	229,592,337	62,505,728	292,098,065	732,668,836	38,506,670	771,175,506	479,077,441	37.9%
2025	4.582%	1,000	37,331,110	-	117,984,185	7,390,981	8,525,423	150,073,704	68,390,307	218,464,011	686,284,626	39,964,262	726,248,888	507,784,877	30.1%
2026	4.304%	1,000	39,863,445	-	107,787,572	7,575,756	4,851,531	79,425,352	74,162,417	153,587,769	648,292,698	41,326,708	689,619,405	536,031,636	22.3%
2027	4.026%	1,000	42,562,834	-	97,167,594	7,765,149	1,954,547	19,009,990	79,620,943	98,630,933	619,391,246	42,423,431	661,814,677	563,183,744	14.9%
2028	3.750%	1,000	45,242,931	27,013,285	83,660,086	7,959,277	353,157	-	84,814,872	84,814,872	603,198,163	43,432,894	646,631,057	561,816,185	13.1%
2029	3.750%	1,000	48,034,193	36,049,811	75,925,744	8,158,260	-	-	89,952,616	89,952,616	596,215,922	44,144,429	640,360,351	550,407,735	14.0%
2030	3.750%	1,000	50,822,129	21,956,495	64,416,407	8,362,217	-	-	95,099,260	95,099,260	602,830,526	44,722,331	647,552,857	552,453,597	14.7%
2031	3.750%	1,000	53,594,311	12,047,210	57,070,250	8,571,271	-	-	100,362,727	100,362,727	619,651,557	45,260,232	664,911,789	564,549,062	15.1%
2032	3.750%	1,000	56,527,352	4,330,122	52,071,920	8,785,554	-	-	105,709,154	105,709,154	644,725,848	45,897,982	690,623,830	584,914,676	15.3%
2033	3.750%	1,000	59,575,018	-	49,897,599	9,005,193	12,488	684,715	111,147,839	111,832,554	675,583,645	46,567,122	722,150,768	610,318,214	15.5%
2034	3.750%	1,000	62,789,642	-	49,600,726	9,230,322	99,217	4,742,526	116,705,231	121,447,757	711,185,646	47,361,875	758,547,621	637,099,764	16.0%
2035	3.750%	1,000	66,088,228	-	50,681,551	9,461,080	288,299	10,976,422	122,540,493	133,516,915	750,178,608	48,247,151	798,426,523	664,909,108	16.7%
2036	3.750%	1,000	69,392,640	-	52,798,355	9,697,607	539,738	18,412,838	128,667,517	147,080,355	791,999,384	49,209,722	841,209,106	694,128,751	17.5%
2037	3.750%	1,000	72,862,272	-	55,327,871	9,940,047	831,565	26,838,757	135,100,893	161,939,650	836,445,796	50,428,506	886,874,302	724,934,652	18.3%
2038	3.750%	1,000	76,505,385	-	58,580,505	10,188,548	1,150,175	35,725,264	141,855,938	177,581,202	882,467,691	51,819,687	934,287,378	756,706,176	19.0%
2039	3.750%	1,000	80,330,654	-	62,884,539	10,443,262	1,469,792	44,197,909	148,948,735	193,146,644	929,840,603	53,281,752	983,122,355	789,975,711	19.6%
2040	3.750%	1,000	84,347,187	-	67,449,304	10,704,344	1,772,482	52,163,931	156,396,172	208,560,103	978,831,107	54,783,263	1,033,614,369	825,054,266	20.2%
2041	3.750%	1,000	88,564,547	-	72,097,317	10,971,952	2,058,236	59,717,445	164,215,980	223,933,425	1,029,574,011	56,309,373	1,085,883,384	861,949,959	20.6%
2042	3.750%	1,000	92,992,774	-	76,813,489	11,246,251	2,331,047	66,981,526	172,426,779	239,408,305	1,082,204,628	57,831,598	1,140,036,226	900,627,921	21.0%
2043	3.750%	1,000	97,642,413	-	81,466,253	11,527,408	2,598,169	74,228,447	181,048,118	255,276,565	1,137,056,090	59,344,046	1,196,400,136	941,123,571	21.3%
2044	3.750%	1,000	102,524,533	-	86,108,322	11,815,592	2,869,034	81,698,100	190,100,524	271,798,624	1,194,383,392	60,859,299	1,255,242,691	983,444,067	21.7%
2045	3.750%	1,000	107,650,760	-	90,754,787	12,110,982	3,152,572	89,635,663	199,605,550	289,241,213	1,254,399,552	62,383,057	1,316,782,610	1,027,541,397	22.0%
2046	3.750%	1,000	113,033,298	-	95,562,344	12,413,757	3,455,287	98,148,147	209,585,828	307,733,975	1,317,280,272	63,914,964	1,381,195,236	1,073,461,261	22.3%
2047	3.750%	1,000	118,684,963	-	100,468,314	12,724,101	3,782,593	107,423,288	220,065,119	327,488,407	1,383,267,910	65,472,640	1,448,740,550	1,121,252,143	22.6%
2048	3.750%	1,000	124,619,211	-	105,589,450	13,042,204	4,139,607	117,550,452	231,068,375	348,618,827	1,452,483,818	67,056,892	1,519,540,710	1,170,921,883	22.9%
2049	3.750%	1,000	130,850,171	-	110,949,136	13,368,259	4,529,504	128,612,732	242,621,794	371,234,526	1,525,128,007	68,678,535	1,593,806,542	1,222,572,016	23.3%
2050	3.750%	1,000	137,392,680	-	116,533,794	13,702,466	4,955,925	140,725,077	254,752,884	395,477,961	1,601,394,862	70,346,454	1,671,741,316	1,276,263,355	23.7%
2051	3.750%	1,000	144,262,314	-	122,372,683	14,045,027	5,422,923	153,992,604	267,490,528	421,483,132	1,681,469,656	72,066,686	1,753,536,342	1,332,053,210	24.0%
2052	3.750%	1,000	151,475,430	-	128,497,991	14,396,152	5,934,141	168,508,032	280,865,054	449,373,086	1,765,545,422	73,842,730	1,839,388,152	1,390,015,066	24.4%
2053	3.750%	1,000	159,049,201	-	134,926,289	14,756,056	6,493,063	184,367,951	294,908,307	479,276,258	1,853,823,642	75,675,256	1,929,498,898	1,450,222,640	24.8%
2054	3.750%	1,000	167,001,661	-	141,674,222	15,124,958	7,103,334	201,673,766	309,653,722	511,327,488	1,946,515,187	77,566,629	2,024,081,816	1,512,754,328	25.3%
2055	3.750%	1,000	175,351,744	-	148,758,745	15,503,082	7,768,788	220,532,471	325,136,408	545,668,879	2,043,841,007	79,517,649	2,123,358,656	1,577,689,777	25.7%

^a Additional contributions in the amount of \$101,396,923 are needed over the years 2028 through 2032 to pay all benefits due.

Open Group Projections

Scenario 4 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

6.25% Assumed Net Investment Return

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

1,500 New Contracts Per Year Beginning in FY 2020

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					
			Contributions	Additional Required Solvency Contributions	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses	Unfunded Liability	Funded Ratio
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,504,816	\$ 845,869,821	\$ 1,066,832,783	\$ 27,587,658	\$ 1,094,420,441	\$ 248,550,620	77.3%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	23,730,619	739,302,630	978,633,871	24,753,793	1,003,387,664	264,085,034	73.7%
2020	6.250%	1,500	7,534,932	-	145,963,226	6,532,550	40,261,877	610,873,044	39,403,574	650,276,618	927,467,470	30,424,342	957,891,812	307,615,194	67.9%
2021	6.250%	1,500	33,451,937	-	146,453,857	6,695,864	34,495,698	525,670,958	54,134,054	579,805,012	873,739,189	32,010,862	905,750,051	325,945,039	64.0%
2022	6.250%	1,500	38,699,028	-	146,562,885	6,863,260	29,323,546	440,267,387	66,858,911	507,126,298	818,467,233	33,415,155	851,882,388	344,756,090	59.5%
2023	6.250%	1,500	43,621,321	-	137,058,399	7,034,842	24,424,547	364,220,014	77,884,604	442,104,618	771,603,075	34,682,712	806,285,787	364,181,169	54.8%
2024	6.250%	1,500	49,264,782	-	125,174,440	7,210,713	20,205,605	301,305,249	86,468,849	387,774,098	735,362,412	35,994,899	771,357,311	383,583,213	50.3%
2025	6.250%	1,500	55,278,417	-	119,478,609	7,390,981	16,628,259	246,342,335	94,891,517	341,233,852	704,780,085	37,184,988	741,965,073	400,731,221	46.0%
2026	6.250%	1,500	59,303,447	-	109,970,139	7,575,756	13,603,903	201,703,790	103,029,089	304,732,879	683,785,719	38,268,064	722,053,783	417,320,904	42.2%
2027	6.250%	1,500	63,461,027	-	100,277,223	7,765,149	11,234,433	168,356,878	110,775,148	279,132,026	672,819,126	39,078,652	711,897,778	432,765,752	39.2%
2028	6.250%	1,500	67,601,518	-	88,088,139	7,959,277	9,646,842	149,557,822	118,295,689	267,853,511	675,429,058	39,909,178	715,338,235	447,484,724	37.4%
2029	6.250%	1,500	71,854,329	-	81,992,091	8,158,260	8,784,278	140,046,078	125,686,086	265,732,164	686,522,921	40,476,813	726,999,734	461,267,570	36.6%
2030	6.250%	1,500	76,089,718	-	72,374,596	8,362,217	8,609,859	144,008,842	133,045,449	277,054,291	710,512,114	40,933,414	751,445,528	474,391,237	36.9%
2031	6.250%	1,500	80,326,859	-	67,138,172	8,571,271	9,142,660	157,768,918	140,501,050	298,269,968	744,155,476	41,374,011	785,529,487	487,259,519	38.0%
2032	6.250%	1,500	84,763,489	-	64,363,763	8,785,554	10,218,000	179,601,090	148,035,596	327,636,686	785,552,865	41,936,483	827,489,348	499,852,662	39.6%
2033	6.250%	1,500	89,361,084	-	64,566,768	9,005,193	11,711,001	207,101,215	155,665,966	362,767,181	832,214,892	42,532,585	874,747,477	511,980,296	41.5%
2034	6.250%	1,500	94,184,463	-	66,822,698	9,230,322	13,501,847	238,734,505	163,449,264	402,183,769	883,295,324	43,255,390	926,550,713	524,366,944	43.4%
2035	6.250%	1,500	99,132,342	-	70,383,004	9,461,080	15,514,530	273,537,293	171,621,728	445,159,021	937,473,770	44,060,670	981,534,441	536,375,420	45.4%
2036	6.250%	1,500	104,088,959	-	75,045,684	9,697,607	17,691,471	310,574,432	180,202,814	490,777,246	994,300,668	44,931,672	1,039,232,340	548,455,094	47.2%
2037	6.250%	1,500	109,293,407	-	80,089,136	9,940,047	20,003,786	349,842,442	189,212,955	539,055,397	1,053,655,433	46,070,659	1,099,726,092	560,670,695	49.0%
2038	6.250%	1,500	114,758,078	-	85,853,555	10,188,548	22,441,163	390,999,580	198,673,602	589,673,182	1,114,260,346	47,387,155	1,161,647,501	571,974,319	50.8%
2039	6.250%	1,500	120,495,982	-	92,958,577	10,443,262	24,963,570	433,057,293	208,607,282	641,664,575	1,175,936,490	48,770,325	1,224,706,815	583,042,240	52.4%
2040	6.250%	1,500	126,520,781	-	100,320,555	10,704,344	27,542,988	476,096,164	219,037,647	695,133,811	1,239,142,894	50,186,092	1,289,328,986	594,195,175	53.9%
2041	6.250%	1,500	132,846,820	-	107,623,868	10,971,952	30,194,605	520,541,769	229,989,529	750,531,293	1,304,199,312	51,616,223	1,355,815,535	605,284,237	55.4%
2042	6.250%	1,500	139,489,161	-	114,878,529	11,246,251	32,945,168	566,851,318	241,489,005	808,340,328	1,371,401,037	53,029,216	1,424,430,253	616,089,930	56.7%
2043	6.250%	1,500	146,463,619	-	121,993,006	11,527,408	35,826,553	615,621,076	253,563,456	869,184,532	1,441,241,247	54,418,175	1,495,659,423	626,474,891	58.1%
2044	6.250%	1,500	153,786,800	-	129,036,632	11,815,592	38,874,397	667,430,049	266,241,628	933,671,677	1,514,112,133	55,797,530	1,569,909,663	636,237,986	59.5%
2045	6.250%	1,500	161,476,140	-	136,064,931	12,110,982	42,123,711	722,853,987	279,553,710	1,002,407,697	1,590,313,763	57,175,732	1,647,489,495	645,081,798	60.8%
2046	6.250%	1,500	169,549,947	-	143,298,759	12,413,757	45,604,241	782,295,659	293,531,395	1,075,827,054	1,670,106,097	58,556,361	1,728,662,457	652,835,403	62.2%
2047	6.250%	1,500	178,027,444	-	150,689,754	12,724,101	49,343,232	846,252,480	308,207,965	1,154,460,445	1,753,804,514	59,960,405	1,813,764,919	659,304,474	63.6%
2048	6.250%	1,500	186,928,816	-	158,377,418	13,042,204	53,368,097	915,129,771	323,618,363	1,238,748,134	1,841,578,140	61,390,335	1,902,968,475	664,220,341	65.1%
2049	6.250%	1,500	196,275,257	-	166,420,282	13,368,259	57,703,013	989,319,500	339,799,282	1,329,118,782	1,933,689,529	62,859,484	1,996,549,013	667,430,231	66.6%
2050	6.250%	1,500	206,089,020	-	174,799,097	13,702,466	62,373,747	1,069,280,704	356,789,246	1,426,069,950	2,030,390,829	64,376,854	2,094,767,683	668,697,733	68.1%
2051	6.250%	1,500	216,393,471	-	183,558,304	14,045,027	67,408,337	1,155,479,181	374,628,708	1,530,107,889	2,131,918,468	65,947,735	2,197,866,202	667,758,313	69.6%
2052	6.250%	1,500	227,213,145	-	192,746,691	14,396,152	72,835,141	1,248,384,624	393,360,143	1,641,744,767	2,238,518,030	67,574,310	2,306,092,340	664,347,573	71.2%
2053	6.250%	1,500	238,573,802	-	202,389,337	14,756,056	78,683,528	1,348,496,561	413,028,150	1,761,524,711	2,350,445,422	69,255,468	2,419,700,890	658,176,179	72.8%
2054	6.250%	1,500	250,502,492	-	212,511,332	15,124,958	84,984,775	1,456,347,538	433,679,558	1,890,027,096	2,467,968,229	70,993,331	2,538,961,560	648,934,464	74.4%
2055	6.250%	1,500	263,027,616	-	223,138,118	15,503,082	91,772,247	1,572,506,201	455,363,536	2,027,869,737	2,591,366,731	72,788,546	2,664,155,277	636,285,540	76.1%

Open Group Projections

Scenario 5 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

6.25% Assumed Net Investment Return

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

2,500 New Contracts Per Year Beginning in FY 2020

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					
			Contributions	Additional Required Solvency Contributions	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses	Unfunded Liability	Funded Ratio
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,504,816	\$ 845,869,821	\$ 1,066,832,783	\$ 27,587,658	\$ 1,094,420,441	\$ 248,550,620	77.3%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	23,730,619	739,302,630	978,633,871	24,753,793	1,003,387,664	264,085,034	73.7%
2020	6.250%	2,500	7,534,932	-	145,963,226	6,532,550	40,261,877	610,873,044	54,041,321	664,914,365	952,883,758	30,424,342	983,308,100	318,393,735	67.6%
2021	6.250%	2,500	51,994,662	-	146,496,279	6,695,864	35,065,070	544,740,633	81,739,406	626,480,039	926,877,722	32,010,862	958,888,584	332,408,545	65.3%
2022	6.250%	2,500	61,386,745	-	147,144,280	6,863,260	31,195,754	483,315,592	105,624,651	588,940,243	901,789,575	33,415,155	935,204,730	346,264,487	63.0%
2023	6.250%	2,500	70,567,602	-	138,229,376	7,034,842	27,908,331	436,527,307	125,838,172	562,365,479	887,764,850	34,682,712	922,447,562	360,082,083	61.0%
2024	6.250%	2,500	80,606,406	-	126,960,824	7,210,713	25,634,414	408,596,591	141,444,930	550,041,521	886,650,273	35,994,899	922,645,172	372,603,651	59.6%
2025	6.250%	2,500	91,173,029	-	122,467,456	7,390,981	24,346,689	394,257,872	156,302,984	550,560,856	893,518,106	37,184,988	930,703,094	380,142,238	59.2%
2026	6.250%	2,500	98,183,450	-	114,335,274	7,575,756	23,910,867	394,441,159	170,425,814	564,866,973	912,028,058	38,268,064	950,296,122	385,429,149	59.4%
2027	6.250%	2,500	105,257,414	-	106,496,480	7,765,149	24,375,455	409,812,399	183,782,019	593,594,418	942,022,743	39,078,652	981,101,395	387,506,977	60.5%
2028	6.250%	2,500	112,318,691	-	96,944,245	7,959,277	25,841,487	443,069,055	196,624,844	639,693,899	986,567,845	39,909,178	1,026,477,022	386,783,123	62.3%
2029	6.250%	2,500	119,494,599	-	94,124,785	8,158,260	28,221,526	488,502,135	209,179,455	697,681,590	1,040,198,493	40,476,813	1,080,675,306	382,993,716	64.6%
2030	6.250%	2,500	126,624,898	-	88,290,975	8,362,217	31,453,805	549,927,646	221,624,651	771,551,308	1,107,008,539	40,933,414	1,147,941,953	376,390,645	67.2%
2031	6.250%	2,500	133,791,954	-	87,274,014	8,571,271	35,538,340	623,412,655	234,131,037	857,543,692	1,183,637,909	41,374,011	1,225,011,920	367,468,228	70.0%
2032	6.250%	2,500	141,235,762	-	88,947,450	8,785,554	40,302,149	707,217,562	246,724,126	953,941,688	1,267,984,214	41,936,483	1,309,920,697	355,979,009	72.8%
2033	6.250%	2,500	148,933,216	-	93,905,105	9,005,193	45,617,118	798,857,999	259,443,277	1,058,301,276	1,357,302,850	42,532,585	1,399,835,435	341,534,159	75.6%
2034	6.250%	2,500	156,974,105	-	101,266,642	9,230,322	51,359,024	896,694,164	272,415,441	1,169,109,605	1,450,994,781	43,255,390	1,494,250,170	325,140,565	78.2%
2035	6.250%	2,500	165,220,571	-	109,785,909	9,461,080	57,458,287	1,000,126,033	286,036,213	1,286,162,246	1,547,719,944	44,060,670	1,591,780,615	305,618,369	80.8%
2036	6.250%	2,500	173,481,599	-	119,540,340	9,697,607	63,869,538	1,108,239,223	300,338,023	1,408,577,246	1,647,216,591	44,931,672	1,692,148,263	283,571,017	83.2%
2037	6.250%	2,500	182,155,679	-	129,611,667	9,940,047	70,576,148	1,221,419,336	315,354,924	1,536,774,260	1,749,508,587	46,070,659	1,795,579,246	258,804,986	85.6%
2038	6.250%	2,500	191,263,463	-	140,399,656	10,188,548	77,590,547	1,339,685,142	331,122,671	1,670,807,813	1,852,877,667	47,387,155	1,900,264,822	229,457,009	87.9%
2039	6.250%	2,500	200,826,636	-	153,106,652	10,443,262	84,877,565	1,461,839,429	347,678,804	1,809,518,233	1,957,287,764	48,770,325	2,006,058,089	196,539,856	90.2%
2040	6.250%	2,500	210,867,968	-	166,063,056	10,704,344	92,414,457	1,588,354,455	365,062,744	1,953,417,199	2,063,641,759	50,186,092	2,113,827,851	160,410,652	92.4%
2041	6.250%	2,500	221,411,366	-	178,676,971	10,971,952	100,249,687	1,720,366,585	383,315,882	2,103,682,467	2,172,686,915	51,616,223	2,224,303,138	120,620,671	94.6%
2042	6.250%	2,500	232,481,935	-	191,008,609	11,246,251	108,453,192	1,859,046,852	402,481,676	2,261,528,528	2,285,098,254	53,029,216	2,338,127,470	76,598,942	96.7%
2043	6.250%	2,500	244,106,031	-	203,046,512	11,527,408	117,099,321	2,005,678,284	422,605,759	2,428,284,043	2,401,746,605	54,418,175	2,456,164,781	27,880,738	98.9%
2044	6.250%	2,500	256,311,333	-	214,893,250	11,815,592	126,265,951	2,161,546,726	443,736,047	2,605,282,773	2,523,350,914	55,797,530	2,579,148,444	(26,134,329)	101.0%
2045	6.250%	2,500	269,126,900	-	226,685,218	12,110,982	136,030,140	2,327,907,566	465,922,850	2,793,830,416	2,650,435,474	57,175,732	2,707,611,206	(86,219,210)	103.2%
2046	6.250%	2,500	282,583,245	-	238,771,588	12,413,757	146,460,537	2,505,766,003	489,218,992	2,994,984,995	2,783,478,745	58,556,361	2,842,035,105	(152,949,890)	105.4%
2047	6.250%	2,500	296,712,407	-	251,132,633	12,724,101	157,621,555	2,696,243,231	513,679,942	3,209,923,173	2,922,991,622	59,960,405	2,982,952,027	(226,971,146)	107.6%
2048	6.250%	2,500	311,548,027	-	263,953,354	13,042,204	169,578,603	2,900,374,303	539,363,939	3,439,738,242	3,069,289,292	61,390,335	3,130,679,627	(309,058,615)	109.9%
2049	6.250%	2,500	327,125,429	-	277,362,573	13,368,259	182,393,489	3,119,162,389	566,332,136	3,685,494,525	3,222,812,501	62,859,484	3,285,671,985	(399,822,540)	112.2%
2050	6.250%	2,500	343,481,700	-	291,329,704	13,702,466	196,130,988	3,353,742,907	594,648,743	3,948,391,650	3,383,983,314	64,376,854	3,448,360,168	(500,031,482)	114.5%
2051	6.250%	2,500	360,655,785	-	305,929,546	14,045,027	210,860,953	3,605,285,072	624,381,180	4,229,666,252	3,553,196,947	65,947,735	3,619,144,681	(610,521,571)	116.9%
2052	6.250%	2,500	378,688,574	-	321,244,092	14,396,152	226,655,190	3,874,988,592	655,600,239	4,530,588,831	3,730,863,259	67,574,310	3,798,437,569	(732,151,262)	119.3%
2053	6.250%	2,500	397,623,003	-	337,315,432	14,756,056	243,588,699	4,164,128,806	688,380,251	4,852,509,057	3,917,409,036	69,255,468	3,986,664,504	(865,844,553)	121.7%
2054	6.250%	2,500	417,504,153	-	354,185,554	15,124,958	261,741,227	4,474,063,724	722,799,263	5,196,862,987	4,113,280,382	70,993,331	4,184,273,713	(1,012,589,274)	124.2%
2055	6.250%	2,500	438,379,361	-	371,896,863	15,503,082	281,197,946	4,806,241,086	758,939,226	5,565,180,312	4,318,944,552	72,788,546	4,391,733,098	(1,173,447,214)	126.7%

Open Group Projections

Scenario 6 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

6.25% Assumed Net Investment Return

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

5% Annual Sales Growth from 500 Contracts Sold in FY 2020 to 2,500 New Contracts Per Year

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses	Unfunded Liability	Funded Ratio
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,504,816	\$ 845,869,821	\$ 1,066,832,783	\$ 27,587,658	\$ 1,094,420,441	\$ 248,550,620	77.3%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	23,730,619	739,302,630	978,633,871	24,753,793	1,003,387,664	264,085,034	73.7%
2020	6.250%	500	7,534,932	-	145,963,226	6,532,550	40,261,877	610,873,044	24,765,827	635,638,871	902,051,183	30,424,342	932,475,525	296,836,654	68.2%
2021	6.250%	525	14,909,212	-	146,411,436	6,695,864	33,926,325	506,601,281	26,912,943	533,514,224	821,267,833	32,010,862	853,278,695	319,764,471	62.5%
2022	6.250%	551	16,498,058	-	145,982,604	6,863,260	27,466,285	397,719,760	29,241,438	426,961,198	737,275,340	33,415,155	770,690,495	343,729,297	55.4%
2023	6.250%	579	17,807,231	-	135,903,911	7,034,842	21,006,386	293,594,624	32,214,601	325,809,225	659,977,331	34,682,712	694,660,043	368,850,818	46.9%
2024	6.250%	608	19,878,738	-	123,436,974	7,210,713	14,940,594	197,766,270	35,269,179	233,035,449	592,124,774	35,994,899	628,119,673	395,084,224	37.1%
2025	6.250%	638	22,362,549	-	116,590,586	7,390,981	9,232,924	105,380,176	39,086,664	144,466,840	528,888,740	37,184,988	566,073,728	421,606,888	25.5%
2026	6.250%	670	24,649,743	-	105,794,620	7,575,756	3,855,759	20,515,302	43,425,708	63,941,010	474,661,214	38,268,064	512,929,278	448,988,268	12.5%
2027	6.250%	704	27,344,736	53,655,325	94,381,602	7,765,149	631,387	-	48,129,602	48,129,602	430,684,281	39,078,652	469,762,933	421,633,331	10.2%
2028	6.250%	739	30,243,804	57,467,571	79,752,098	7,959,277	-	-	53,306,325	53,306,325	401,200,189	39,909,178	441,109,366	387,803,041	12.1%
2029	6.250%	776	33,501,689	45,321,812	70,665,241	8,158,260	-	-	58,955,977	58,955,977	381,707,925	40,476,813	422,184,738	363,228,761	14.0%
2030	6.250%	814	37,044,709	28,982,652	57,665,144	8,362,217	-	-	65,140,431	65,140,431	377,168,458	40,933,414	418,101,872	352,961,441	15.6%
2031	6.250%	855	40,856,224	16,465,817	48,750,770	8,571,271	-	-	71,988,440	71,988,440	384,707,003	41,374,011	426,081,014	354,092,574	16.9%
2032	6.250%	898	45,123,567	5,898,286	42,236,299	8,785,554	-	-	79,496,760	79,496,760	402,895,372	41,936,483	444,831,855	365,335,095	17.9%
2033	6.250%	943	49,829,017	-	38,581,737	9,005,193	69,003	2,311,091	87,719,268	90,030,359	429,791,433	42,532,585	472,324,018	382,293,659	19.1%
2034	6.250%	990	55,052,761	-	36,845,906	9,230,322	420,709	11,708,333	96,710,493	108,418,826	464,617,034	43,255,390	507,872,423	399,453,597	21.3%
2035	6.250%	1,039	60,775,221	-	36,809,287	9,461,080	1,178,178	27,391,365	106,623,318	134,014,683	506,425,545	44,060,670	550,486,216	416,471,533	24.3%
2036	6.250%	1,091	67,004,681	-	38,012,034	9,697,607	2,305,792	48,992,197	117,552,208	166,544,405	554,969,446	44,931,672	599,901,118	433,356,713	27.8%
2037	6.250%	1,146	73,872,661	-	39,960,350	9,940,047	3,799,792	76,764,253	129,601,309	206,365,562	610,418,454	46,070,659	656,489,113	450,123,551	31.4%
2038	6.250%	1,203	81,444,609	-	42,964,024	10,188,548	5,668,493	110,724,783	142,885,444	253,610,227	672,418,503	47,387,155	719,805,658	466,195,431	35.2%
2039	6.250%	1,263	89,792,682	-	47,093,705	10,443,262	7,913,014	150,893,512	157,531,202	308,424,714	741,168,886	48,770,325	789,939,211	481,514,497	39.0%
2040	6.250%	1,327	98,996,431	-	51,904,173	10,704,344	10,550,734	197,832,161	173,678,150	371,510,311	817,262,995	50,186,092	867,449,087	495,938,776	42.8%
2041	6.250%	1,393	109,143,566	-	57,398,552	10,971,952	13,619,358	252,224,581	191,480,160	443,704,741	901,242,215	51,616,223	952,858,438	509,153,697	46.6%
2042	6.250%	1,463	120,330,781	-	63,576,228	11,246,251	17,164,618	314,897,501	211,106,877	526,004,378	993,749,000	53,029,216	1,046,778,216	520,773,838	50.2%
2043	6.250%	1,536	132,664,686	-	70,310,541	11,527,408	21,245,358	386,969,596	232,745,331	619,714,927	1,095,710,254	54,418,175	1,150,128,430	530,413,503	53.9%
2044	6.250%	1,613	146,262,816	-	77,689,240	11,815,592	25,932,407	469,659,987	256,601,728	726,261,715	1,208,095,855	55,797,530	1,263,893,385	537,631,670	57.5%
2045	6.250%	1,693	161,254,755	-	85,744,803	12,110,982	31,304,942	564,363,899	282,903,405	847,267,304	1,331,987,378	57,175,732	1,389,163,110	541,895,806	61.0%
2046	6.250%	1,778	177,783,368	-	94,635,638	12,413,757	37,449,681	672,547,553	311,901,004	984,448,557	1,468,540,992	58,556,361	1,527,097,352	542,648,795	64.5%
2047	6.250%	1,867	196,006,163	-	104,360,739	12,724,101	44,463,137	795,932,013	343,870,857	1,139,802,870	1,619,111,254	59,960,405	1,679,071,659	539,268,789	67.9%
2048	6.250%	1,960	216,096,794	-	115,098,644	13,042,204	52,452,719	936,340,678	379,117,620	1,315,458,298	1,785,087,618	61,390,335	1,846,477,953	531,019,655	71.2%
2049	6.250%	2,058	238,246,716	-	126,931,980	13,368,259	61,535,733	1,095,822,888	417,977,176	1,513,800,064	1,968,064,718	62,859,484	2,030,924,202	517,124,138	74.5%
2050	6.250%	2,161	262,667,004	-	139,958,748	13,702,466	71,843,737	1,276,672,415	460,819,836	1,737,492,251	2,169,794,546	64,376,854	2,234,171,400	496,679,149	77.8%
2051	6.250%	2,269	289,590,372	-	154,309,499	14,045,027	83,523,230	1,481,431,491	508,053,870	1,989,485,361	2,392,200,104	65,947,735	2,458,147,838	468,662,477	80.9%
2052	6.250%	2,382	319,273,385	-	170,129,023	14,396,152	96,736,534	1,712,916,235	560,129,391	2,273,045,626	2,637,401,388	67,574,310	2,704,975,698	431,930,072	84.0%
2053	6.250%	2,500	351,998,907	-	187,568,704	14,756,056	111,663,697	1,974,254,079	617,425,897	2,591,679,976	2,907,532,654	69,255,468	2,976,788,122	385,108,146	87.1%
2054	6.250%	2,500	387,930,890	-	206,794,855	15,124,958	128,500,104	2,268,765,260	671,002,306	2,939,767,566	3,188,653,867	70,993,331	3,259,647,197	319,879,632	90.2%
2055	6.250%	2,500	415,491,716	-	227,959,594	15,503,082	147,092,264	2,587,886,564	721,574,467	3,309,461,031	3,480,376,951	72,788,546	3,553,165,497	243,704,466	93.1%

^a Additional contributions in the amount of \$207,791,463 are needed over the years 2027 through 2032 to pay all benefits due.

Open Group Projections

Scenario 7— Continuing Business Scenario

Projection Based on Data as of June 30, 2018

6.25% Assumed Net Investment Return

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

10% Annual Sales Growth from 500 Contracts Sold in FY 2020 to 2,500 New Contracts Per Year

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities					
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses	Unfunded Liability	Funded Ratio
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,504,816	\$ 845,869,821	\$ 1,066,832,783	\$ 27,587,658	\$ 1,094,420,441	\$ 248,550,620	77.3%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	23,730,619	739,302,630	978,633,871	24,753,793	1,003,387,664	264,085,034	73.7%
2020	6.250%	500	7,534,932	-	145,963,226	6,532,550	40,261,877	610,873,044	24,765,827	635,638,871	902,051,183	30,424,342	932,475,525	296,836,654	68.2%
2021	6.250%	550	14,909,212	-	146,411,436	6,695,864	33,926,325	506,601,281	27,297,184	533,898,465	821,935,011	32,010,862	853,945,873	320,047,408	62.5%
2022	6.250%	605	16,984,804	-	145,983,717	6,863,260	27,481,231	398,220,339	30,430,049	428,650,388	739,475,843	33,415,155	772,890,998	344,240,610	55.5%
2023	6.250%	666	18,990,530	-	135,920,517	7,034,842	21,073,579	295,329,089	34,665,332	329,994,421	664,817,973	34,682,712	699,500,685	369,506,264	47.2%
2024	6.250%	732	22,012,228	-	123,487,758	7,210,713	15,113,096	201,755,943	39,478,441	241,234,384	601,003,103	35,994,899	636,998,002	395,763,618	37.9%
2025	6.250%	805	25,752,116	-	116,698,702	7,390,981	9,583,270	113,001,646	45,589,746	158,591,392	543,537,153	37,184,988	580,722,141	422,130,749	27.3%
2026	6.250%	886	29,663,310	-	106,003,245	7,575,756	4,479,979	33,565,934	52,843,166	86,409,100	497,208,955	38,268,064	535,477,019	449,067,919	16.1%
2027	6.250%	974	34,377,887	33,535,392	94,747,103	7,765,149	1,033,039	-	61,185,080	61,185,080	463,321,969	39,078,652	502,800,621	441,615,541	12.2%
2028	6.250%	1,072	39,762,454	48,551,321	80,354,498	7,959,277	-	-	70,845,802	70,845,802	447,846,424	39,909,178	487,755,601	416,909,799	14.5%
2029	6.250%	1,179	46,055,927	33,723,123	71,620,790	8,158,260	-	-	81,970,552	81,970,552	445,689,491	40,476,813	486,166,304	404,195,752	16.9%
2030	6.250%	1,297	53,283,011	14,208,799	59,129,593	8,362,217	-	-	94,794,037	94,794,037	462,916,331	40,933,414	503,849,745	409,055,708	18.8%
2031	6.250%	1,427	61,541,245	-	50,923,377	8,571,271	62,987	2,109,584	109,648,876	111,758,460	497,469,347	41,374,011	538,843,358	427,084,898	20.7%
2032	6.250%	1,569	71,152,935	-	45,366,019	8,785,554	655,090	19,766,036	126,771,013	146,537,049	548,874,077	41,936,483	590,810,560	444,273,511	24.8%
2033	6.250%	1,726	82,259,033	-	42,970,838	9,005,193	2,167,379	52,216,418	146,494,463	198,710,881	616,298,787	42,532,585	658,831,372	460,120,491	30.2%
2034	6.250%	1,899	95,125,301	-	42,861,497	9,230,322	4,587,942	99,837,842	169,201,105	269,038,947	700,256,474	43,255,390	743,511,863	474,472,916	36.2%
2035	6.250%	2,089	109,949,275	-	44,895,973	9,461,080	7,950,794	163,380,858	195,427,277	358,808,135	801,314,820	44,060,670	845,375,491	486,567,356	42.4%
2036	6.250%	2,297	126,991,412	-	48,692,515	9,697,607	12,322,605	244,304,753	225,718,504	470,023,257	920,993,413	44,931,672	965,925,085	495,901,828	48.7%
2037	6.250%	2,500	146,675,081	-	53,855,994	9,940,047	17,819,766	345,003,559	259,791,134	604,794,693	1,059,941,803	46,070,659	1,106,012,462	501,217,769	54.7%
2038	6.250%	2,500	168,252,218	-	60,803,983	10,188,548	24,556,026	466,819,272	290,488,093	757,307,365	1,206,203,444	47,387,155	1,253,590,599	496,283,234	60.4%
2039	6.250%	2,500	182,974,123	-	69,683,627	10,443,262	32,341,473	602,007,979	318,294,346	920,302,325	1,358,970,533	48,770,325	1,407,740,858	487,438,533	65.4%
2040	6.250%	2,500	197,489,916	-	79,939,499	10,704,344	40,913,837	749,767,890	343,853,835	1,093,621,725	1,517,608,836	50,186,092	1,567,794,928	474,173,203	69.8%
2041	6.250%	2,500	211,698,225	-	91,675,431	10,971,952	50,216,686	909,035,418	368,010,986	1,277,046,404	1,681,202,831	51,616,223	1,732,819,054	455,772,650	73.7%
2042	6.250%	2,500	225,468,220	-	104,980,353	11,246,251	60,176,778	1,078,453,812	391,745,937	1,470,199,749	1,848,953,022	53,029,216	1,901,982,238	431,782,489	77.3%
2043	6.250%	2,500	238,745,303	-	119,559,340	11,527,408	70,716,707	1,256,829,074	415,336,108	1,672,165,182	2,020,165,774	54,418,175	2,074,583,950	402,418,768	80.6%
2044	6.250%	2,500	252,297,785	-	135,512,817	11,815,592	81,782,397	1,443,580,847	439,023,793	1,882,604,640	2,194,173,738	55,797,530	2,249,971,268	367,366,628	83.7%
2045	6.250%	2,500	266,205,072	-	152,709,468	12,110,982	93,344,057	1,638,309,526	463,043,178	2,101,352,704	2,370,573,875	57,175,732	2,427,749,607	326,396,903	86.6%
2046	6.250%	2,500	280,519,656	-	170,969,154	12,413,757	105,383,865	1,840,830,136	487,609,868	2,328,440,004	2,549,148,523	58,556,361	2,607,704,883	279,264,879	89.3%
2047	6.250%	2,500	295,305,189	-	189,991,606	12,724,101	117,901,455	2,051,321,073	512,898,394	2,564,219,467	2,729,949,129	59,960,405	2,789,909,534	225,690,067	91.9%
2048	6.250%	2,500	310,647,593	-	209,690,016	13,042,204	130,913,286	2,270,149,732	539,065,256	2,809,214,988	2,913,107,670	61,390,335	2,974,498,005	165,283,017	94.4%
2049	6.250%	2,500	326,609,593	-	229,897,356	13,368,259	144,449,386	2,497,943,096	566,263,902	3,064,206,998	3,098,918,341	62,859,484	3,161,777,825	97,570,827	96.9%
2050	6.250%	2,500	343,240,021	-	250,536,362	13,702,466	158,552,816	2,735,497,105	594,648,743	3,330,145,848	3,287,839,450	64,376,854	3,352,216,304	22,070,456	99.3%
2051	6.250%	2,500	360,585,451	-	271,495,619	14,045,027	173,278,178	2,983,820,088	624,381,180	3,608,201,268	3,480,513,310	65,947,735	3,546,461,044	(61,740,224)	101.7%
2052	6.250%	2,500	378,688,574	-	292,654,750	14,396,152	188,693,506	3,244,151,266	655,600,239	3,899,751,505	3,677,550,475	67,574,310	3,745,124,785	(154,626,720)	104.1%
2053	6.250%	2,500	397,623,003	-	314,115,852	14,756,056	204,875,366	3,517,777,727	688,380,251	4,206,157,978	3,879,654,690	69,255,468	3,948,910,158	(257,247,820)	106.5%
2054	6.250%	2,500	417,504,153	-	335,859,090	15,124,958	221,908,358	3,806,206,190	722,799,262	4,529,005,453	4,087,528,914	70,993,331	4,158,522,245	(370,483,208)	108.9%
2055	6.250%	2,500	438,379,361	-	357,963,166	15,503,082	239,885,679	4,111,004,982	758,939,226	4,869,944,208	4,301,934,921	72,788,546	4,374,723,467	(495,220,741)	111.3%

^a Additional contributions in the amount of \$130,018,635 are needed over the years 2027 through 2030 to pay all benefits due.

Open Group Projections

Scenario 8 — Continuing Business Scenario

Projection Based on Data as of June 30, 2018

6.25% Assumed Net Investment Return

Other Assumptions Based on Those Used in the Actuarial Valuation as of June 30, 2018

15% Annual Sales Growth from 500 Contracts Sold in FY 2020 to 2,500 New Contracts Per Year

Year Ending 6/30	Assumed Net Rate of Return	Annual New Contracts	Assets							Liabilities				Unfunded Liability	Funded Ratio
			Contributions	Additional Required Solvency Contributions ^a	Tuition Payments, Refunds and Fees	Administrative Expenses	Net Investment Return	Market Value of Assets (EOY)	Total Present Value of Future Contributions	Total Fund Assets (MVA + PVFC)	Total Present Value of Future Benefits	Present Value of Future Admin Expenses	Total Present Value of Future Benefits, Fees and Expenses		
2018			\$ 14,574,249	\$ -	\$ 148,689,847	\$ 4,314,146	\$ 46,821,937	\$ 813,365,005	\$ 32,504,816	\$ 845,869,821	\$ 1,066,832,783	\$ 27,587,658	\$ 1,094,420,441	\$ 248,550,620	77.3%
2019	6.250%	0	10,483,115	-	150,251,752	4,422,000	46,397,643	715,572,011	23,730,619	739,302,630	978,633,871	24,753,793	1,003,387,664	264,085,034	73.7%
2020	6.250%	500	7,534,932	-	145,963,226	6,532,550	40,261,877	610,873,044	24,765,827	635,638,871	902,051,183	30,424,342	932,475,525	296,836,654	68.2%
2021	6.250%	575	14,909,212	-	146,411,436	6,695,864	33,926,325	506,601,281	27,681,425	534,282,706	822,602,188	32,010,862	854,613,050	320,330,344	62.5%
2022	6.250%	661	17,471,551	-	145,984,831	6,863,260	27,496,177	398,720,918	31,659,006	430,379,924	741,746,400	33,415,155	775,161,555	344,781,631	55.5%
2023	6.250%	760	20,224,937	-	135,937,240	7,034,842	21,142,341	297,116,114	37,289,583	334,405,697	669,974,257	34,682,712	704,656,969	370,251,272	47.5%
2024	6.250%	875	24,331,678	-	123,540,427	7,210,713	15,294,549	205,991,202	44,154,557	250,145,759	610,770,838	35,994,899	646,765,737	396,619,978	38.7%
2025	6.250%	1,006	29,590,245	-	116,814,427	7,390,981	9,962,535	121,338,574	53,098,525	174,437,099	560,191,749	37,184,988	597,376,737	422,939,638	29.2%
2026	6.250%	1,157	35,574,422	-	106,232,409	7,575,756	5,175,907	48,280,738	64,157,827	112,438,565	523,717,244	38,268,064	561,985,308	449,546,743	20.0%
2027	6.250%	1,330	43,021,247	10,136,567	95,159,311	7,765,149	1,485,908	-	77,520,265	77,520,265	503,909,533	39,078,652	542,988,185	465,467,920	14.3%
2028	6.250%	1,530	51,963,912	37,047,040	81,051,675	7,959,277	-	-	93,716,351	93,716,351	506,595,091	39,909,178	546,504,268	452,787,917	17.1%
2029	6.250%	1,759	62,849,114	18,063,179	72,754,033	8,158,260	-	-	113,264,041	113,264,041	529,182,598	40,476,813	569,659,411	456,395,370	19.9%
2030	6.250%	2,023	75,958,040	-	60,908,940	8,362,217	205,798	6,892,681	136,860,962	143,753,643	578,942,453	40,933,414	619,875,867	476,122,224	23.2%
2031	6.250%	2,326	91,703,636	-	53,629,991	8,571,271	1,338,770	37,733,825	165,412,024	203,145,849	655,796,205	41,374,011	697,170,216	494,024,367	29.1%
2032	6.250%	2,500	110,798,153	-	49,368,676	8,785,554	3,978,555	94,356,303	195,255,073	289,611,376	753,718,569	41,936,483	795,655,052	506,043,676	36.4%
2033	6.250%	2,500	128,031,594	-	48,729,288	9,005,193	8,060,761	172,714,178	221,645,550	394,359,728	862,923,059	42,532,585	905,455,644	511,095,916	43.6%
2034	6.250%	2,500	140,590,201	-	50,792,597	9,230,322	13,274,208	266,555,668	245,040,906	511,596,574	981,837,938	43,255,390	1,025,093,327	513,496,753	49.9%
2035	6.250%	2,500	152,816,765	-	55,339,877	9,461,080	19,368,540	373,940,016	266,194,949	640,134,965	1,108,484,724	44,060,670	1,152,545,395	512,410,430	55.5%
2036	6.250%	2,500	164,513,428	-	62,065,289	9,697,607	26,225,779	492,916,327	286,067,041	778,983,368	1,241,448,988	44,931,672	1,286,380,660	507,397,292	60.6%
2037	6.250%	2,500	175,548,658	-	70,510,762	9,940,047	33,734,040	621,748,216	305,391,924	927,140,140	1,379,669,489	46,070,659	1,425,740,148	498,600,008	65.0%
2038	6.250%	2,500	186,218,801	-	80,940,612	10,188,548	41,785,578	758,623,638	324,418,902	1,083,042,540	1,521,429,799	47,387,155	1,568,816,954	485,774,414	69.0%
2039	6.250%	2,500	197,060,622	-	93,436,899	10,443,262	50,281,737	902,085,836	343,373,781	1,245,459,617	1,665,601,301	48,770,325	1,714,371,626	468,912,009	72.6%
2040	6.250%	2,500	208,134,367	-	107,391,848	10,704,344	59,151,416	1,051,275,428	362,473,513	1,413,748,941	1,811,613,157	50,186,092	1,861,799,249	448,050,308	75.9%
2041	6.250%	2,500	219,485,774	-	122,517,105	10,971,952	68,351,384	1,205,623,529	381,906,359	1,587,529,888	1,958,984,101	51,616,223	2,010,600,324	423,070,436	79.0%
2042	6.250%	2,500	231,180,454	-	138,545,654	11,246,251	77,856,318	1,364,868,396	401,825,979	1,766,694,375	2,107,452,520	53,029,216	2,160,481,736	393,787,361	81.8%
2043	6.250%	2,500	243,289,248	-	155,108,370	11,527,408	87,663,393	1,529,185,259	422,373,692	1,951,558,951	2,257,106,992	54,418,175	2,311,525,168	359,966,217	84.4%
2044	6.250%	2,500	255,860,594	-	172,101,253	11,815,592	97,788,249	1,698,917,257	443,690,164	2,142,607,421	2,408,118,568	55,797,530	2,463,916,098	321,308,677	87.0%
2045	6.250%	2,500	268,932,204	-	189,385,915	12,110,982	108,257,745	1,874,610,309	465,922,850	2,340,533,159	2,560,872,845	57,175,732	2,618,048,577	277,515,418	89.4%
2046	6.250%	2,500	282,535,949	-	206,881,317	12,413,757	119,109,471	2,056,960,655	489,218,992	2,546,179,647	2,715,821,422	58,556,361	2,774,377,782	228,198,135	91.8%
2047	6.250%	2,500	296,712,407	-	224,450,832	12,724,101	130,392,390	2,246,890,519	513,679,942	2,760,570,461	2,873,509,621	59,960,405	2,933,470,026	172,899,565	94.1%
2048	6.250%	2,500	311,548,027	-	242,218,373	13,042,204	142,162,983	2,445,340,952	539,363,939	2,984,704,891	3,034,438,001	61,390,335	3,095,828,336	111,123,445	96.4%
2049	6.250%	2,500	327,125,429	-	260,168,414	13,368,259	154,483,079	2,653,412,787	566,332,136	3,219,744,923	3,199,162,775	62,859,484	3,262,022,259	42,277,336	98.7%
2050	6.250%	2,500	343,481,700	-	278,349,418	13,702,466	167,421,124	2,872,263,727	594,648,743	3,466,912,470	3,368,434,089	64,376,854	3,432,810,943	(34,101,527)	101.0%
2051	6.250%	2,500	360,655,785	-	296,636,932	14,045,027	181,054,498	3,103,292,051	624,381,180	3,727,673,231	3,543,270,572	65,947,735	3,609,218,306	(118,454,925)	103.3%
2052	6.250%	2,500	378,688,574	-	314,846,315	14,396,152	195,477,527	3,348,215,685	655,600,239	4,003,815,924	3,724,708,860	67,574,310	3,792,283,170	(211,532,754)	105.6%
2053	6.250%	2,500	397,623,003	-	333,054,203	14,756,056	210,796,538	3,608,824,967	688,380,251	4,297,205,218	3,913,698,730	69,255,468	3,982,954,198	(314,251,020)	107.9%
2054	6.250%	2,500	417,504,153	-	351,441,270	15,124,958	227,119,247	3,886,882,139	722,799,263	4,609,681,402	4,111,106,352	70,993,331	4,182,099,683	(427,581,719)	110.2%
2055	6.250%	2,500	438,379,361	-	370,181,486	15,503,082	244,551,890	4,184,128,822	758,939,226	4,943,068,048	4,317,715,539	72,788,546	4,390,504,085	(552,563,963)	112.6%

^a Additional contributions in the amount of \$65,246,786 are needed over the years 2027 through 2029 to pay all benefits due.

SECTION D

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Valuation Methods

Actuarial Value of Assets – The Actuarial Value of Assets is equal to the Market Value of Assets plus the present value of expected future contract payments from contract holders.

Actuarial Valuation Assumptions

The rationale for the assumptions (except as indicated) may be found in the experience study report covering the period July 1, 2011 through June 30, 2014, which was issued on August 26, 2015. The assumptions were adopted for first use in the actuarial valuation as of June 30, 2015.

The actuarial assumptions used in the actuarial soundness valuation and the projection scenarios are shown in this Section.

Measurement Date

June 30, 2018

Net Investment Return Rate

Select and ultimate rate structure beginning with 6.25 percent for fiscal year 2019 and grading down in increments of 0.357 percent to an ultimate investment return rate of 3.75 percent for fiscal years on and after fiscal year 2026, compounded annually. Includes inflation assumption of 2.50 percent. (First effective with the actuarial soundness valuation as of June 30, 2018, and provided by ISAC.)

Considering the current asset allocation, liquidity requirements and deferment of the next enrollment period, we believe the net investment rate of return assumption of 6.25 percent in fiscal year 2019 grading down to 3.75 percent in 2026, on a select and ultimate basis, is consistent with applicable Actuarial Standards of Practice.

For the open group scenarios in which new contracts are assumed to be sold, a net investment rate of return assumption of 6.25 percent was used for scenarios in which (1) there was no depletion date, or (2) there was a depletion date, but the funded status increased significantly after the depletion date. A select and ultimate rate was used for scenarios in which there was a depletion date and the funded status remained low for the duration of the projection period.

Weighted Average Tuition and Fees (WATF) by Contract Type Based on the Freshman Tuition Rates Adjusted for Differential Tuition (Blended)

	Contract Type			
	Choice 1	Choice 2	Choice 3	
	Community College	University	University Plus	Legacy†
2018-2019 Weighted Tuition	\$3,942	\$10,925	\$13,885	\$11,687
2018-2019 Weighted Fees	502	3,904	3,968	3,921
2018-2019 Total WATF	4,444	14,829	17,853	15,608

†Legacy contracts refer to contracts sold prior to October 2008. These contracts can be used for full tuition and fees at any public University in the State of Illinois, including UIUC.

For continuing students at public universities and students attending community colleges, fees are combined with tuition in our projections and follow their respective tuition inflation assumptions.

Weighted Average Tuition and Fees (WATF) Increase from Prior Year

	Contract Type			
	Choice 1	Choice 2	Choice 3	
	Community College	University	University Plus	Legacy
2018-2019 Total WATF	\$4,444	\$14,829	\$17,853	\$15,608
2017-2018 Total WATF	4,356	14,404	17,716	15,281
WATF Increase	2.02%	2.95%	0.77%	2.14%

Bias Load

“Legacy,” Choice 1 and Choice 2 contract beneficiaries were assumed on average to attend more expensive schools than indicated by the headcount information that was used to determine the 2018-2019 WATF. The following bias loads were used to recognize this bias toward enrollment at more expensive schools. No bias load was applied to the “University Plus” beneficiaries due to the separation of UIUC.

	Contract Type			
	Choice 1	Choice 2	Choice 3	
	Community College	University	University Plus	Legacy
Bias Load	5.50%	2.50%	0.00%	4.00%

Tuition and Fee Increase Assumption

Tuition and Fee Increase Assumption - June 30, 2018, Actuarial Valuation				
Effective Date	Community College	University	University Plus	Legacy
6/30/2018 and Beyond	5.00%	5.00%	5.00%	5.00%

(First effective with the actuarial soundness valuation as of June 30, 2016, and provided by ISAC.)

These assumptions were chosen by ISAC and consider historical Illinois public tuition and fee inflation, typically over a 20-year horizon, as well as current economic and political conditions.

Truth in Tuition

Under Illinois' Truth-in-Tuition law, the state's 12 public colleges and universities are required to charge incoming resident freshmen a fixed tuition rate for the first four years of college. The Truth in Tuition law does not apply to community colleges.

For contract beneficiaries with a Choice 2, Choice 3 or Legacy contract, it was assumed that their tuition will not increase in their second, third and fourth year of school. If they attend school beyond four years, it was assumed that their tuition would increase to the amount charged the year after the year they first enrolled. For contract beneficiaries with a Choice 1 contract, it was assumed that tuition will increase for each year enrolled. The fee portion of the WATF is assumed to increase each year for all contract types.

The following table shows the WAT (excluding fees) for the past four years that would be used for contract beneficiaries under the Truth-in-Tuition law. (Choice 1 is shown for informational purposes only.)

	Contract Type			
	Choice 1	Choice 2	Choice 3	
	Community College	University	University Plus	Legacy
2018-2019 Weighted Tuition	\$3,942	\$10,925	\$13,885	\$11,687
2017-2018 Weighted Tuition	3,862	10,675	13,884	11,525
2016-2017 Weighted Tuition	3,698	10,410	14,136	11,318
2015-2016 Weighted Tuition	3,549	10,082	14,136	11,022
2014-2015 Weighted Tuition	3,331	9,903	14,145	10,871

Rates of Cancellation

These rates are used to measure the probability of eligible contract beneficiaries cancelling their contracts before and after projected college entrance date. The rates apply to contract beneficiaries who have not yet matriculated and those who have matriculated, but have not used credits within the past year. Once the contract beneficiaries are assumed to have matriculated and started using benefits, the cancellation rates do not apply.

Years From Projected College Entrance Year	Cancellation Rate	Years From Projected College Entrance Year	Cancellation Rate
-17	8.0%	-3	1.0%
-16	7.0%	-2	1.0%
-15	6.0%	-1	1.5%
-14	4.0%	0	1.5%
-13	4.0%	1	3.0%
-12	3.0%	2	3.0%
-11	3.0%	3	5.0%
-10	3.0%	4	5.0%
-9	2.0%	5	7.5%
-8	1.5%	6	7.5%
-7	1.5%	7	5.0%
-6	1.5%	8	5.0%
-5	1.5%	9	5.0%
-4	1.0%	10	100.0%

In the event of a cancellation, it was assumed that a refund will be paid equal to the amount of all contract payments made accumulated with applicable interest, less benefits paid. (Two percent annual interest is applicable to contracts purchased prior to the 2013/2014 enrollment period. No interest is applicable to contracts purchased during or after the 2013/2014 enrollment period.)

Rates of Enrollment

These rates are used to measure the probability of eligible contract beneficiaries matriculating at and beyond their projected college entrance date. The rates apply to contract beneficiaries who have not yet matriculated and those who have matriculated, but have not used credits within the past year.

Years From Projected College Entrance Year	Matriculation Rate
0	70%
1	35%
2	40%
3	30%
4	20%
5	15%
6	15%
7	10%
8	10%
9	10%
10	0%

Utilization of Benefits

The following rates apply to contract beneficiaries who have not yet matriculated and those who have matriculated, but have not used credits within the past year. For those who have matriculated, the projected college entrance year is assumed to be the valuation year. Contract beneficiaries are assumed to use the benefits as described by the CIPTP Master Agreement.

Distribution of Benefit Utilization									
Number of Years Since Matriculation	Number of Semesters Purchased								
	1	2	3	4	5	6	7	8	9
1	73%	73%	49%	37%	29%	24%	21%	18%	16%
2	20%	20%	28%	35%	26%	24%	21%	18%	16%
3	7%	7%	14%	17%	19%	22%	21%	18%	16%
4			5%	6%	13%	15%	21%	18%	16%
5			5%	6%	7%	9%	8%	13%	16%
6					3%	4%	3%	6%	8%
7					2%	2%	2%	4%	6%
8							1%	2%	4%
9							1%	2%	1%

For contract beneficiaries who have matriculated and have used credits within the past year, it is assumed that the contract beneficiaries will utilize 22 credits per year until benefits are fully depleted.

Administrative Expenses

Administrative expenses of the Program are assumed to be paid through a combination of investment earnings and fees assessed on purchasers. Marketing expenses were excluded from the liabilities (present value of future administrative expenses) for current contract beneficiaries as it is assumed those costs should be applicable to future contracts. Administrative expenses are projected to increase by the rate of the inflation assumption of 2.50 percent for two years and then decline at the same rate the present value of benefits declines (combined with a 2.50 percent increase for inflation). The present value of future administrative expenses was determined to be equal to approximately 2.5 percent of the total liabilities.

First effective with the actuarial soundness valuation as of June 30, 2017 the calculation of the total administrative expenses related to marketing was changed from an assumption of 12 percent of total administrative expenses to incorporate actual marketing expenses in the prior fiscal year, as provided by ISAC. The amount of administrative expenses assumed to be non-marketing related is the basis for the present value of future administrative expenses for current contract beneficiaries.

Fiscal Year	Assumed Current Contract Beneficiary Expenses			
	Marketing	Other Administration	Total Administrative Expenses	Marketing % of Total
2018	\$0	\$4,314,146	\$4,314,146	0.00%
2019	0	4,422,000	4,422,000	
2020	0	4,532,550	4,532,550	

For the open group scenarios (in which new contracts are assumed to be sold), marketing expenses are allocated to the year the contracts were sold and non-marketing expenses are allocated over the duration of the contract period until all tuition benefits are assumed to be paid. In fiscal year 2020, marketing expenses are assumed to be \$2,000,000 for the open group scenarios. Marketing expenses are assumed to increase from the amount in fiscal year 2020 by 2.5 percent annually.

Mortality and Disability

No assumption is made for death or disability. Valuing the rate of incidence is expected to be immaterial.

Data Adjustments

The following contract beneficiary records were excluded from the actuarial valuation:

- Records with a payment status indicating they were cancelled;
- Records with a contract usage status of depleted; and
- Records with the number of contract units used equal to the number of contract units purchased.

The projected college entrance year was adjusted for contract beneficiaries who are not scheduled to have completed payments for the contract by the college entrance year provided in the data.

The account balance that is eligible to be refunded is calculated by GRS based on the contract payment information provided, increased with applicable interest, less any tuition and fee benefits paid to date. Two percent annual interest is applicable to contracts purchased prior to the 2013/2014 enrollment period. No interest is applicable to contracts purchased during or after the 2013/2014 enrollment period.

Future Beneficiary Profile

The characteristics of future beneficiaries are assumed to be the same as the characteristics of 2016 new beneficiaries, including the following:

- Distribution of number of years until projected college entrance date at time of contract purchase;
- Distribution of contract type and number of years of tuition benefits purchased; and
- Distribution of contract payment options (lump sum, monthly or annual payments over a period of between five and 15 years depending on beneficiary age at contract purchase).

Assumed Future Contract Prices

Pricing for contracts sold for the period January 18, 2017 through May 31, 2017 were based on the following pricing methodology and underlying assumptions which were developed by and are the responsibility of ISAC.

- Discount Rate of 7.0 percent.
- Tuition and Fee Increases of 6.0 percent for all years for all contract types
- Stabilization Fee of 15 percent of the Present Value of Tuition and Fee Benefits (“PVB”) for Choice 1 contracts, 23 percent of the PVB for Choice 2 contracts and 25 percent of the PVB for Choice 3 contracts.
- Administrative Fee of 3.0 percent of the sum of the PVB and the Stabilization Fee.
- Weighted Average Tuition and Fees (“WATF”) for FY 2018 equal to the WATF for FY 2017 increased by 6.0 percent for Choice 1, 3.0 percent for Choice 2, and 0.0 percent for Choice 3. Increase amounts are based on expected increases in the WATF.
- All payments are assumed to be made at the beginning of the year.
- The price increase limitation of 9.0 percent more than the prior year price for Choice 1 contracts has been eliminated.
- The provisions of Truth in Tuition will be included in the PVB calculations for multi-year contracts with credit values greater than 30. Please note that the provisions of Truth in Tuition do not apply towards fees. Fees are assumed to increase by 6.0 percent for all years.
- Benefits are assumed to be utilized in the first year in which the contract holder is eligible to attend college and also are assumed to be used at a rate of 30 credits per year.
- Prices will be determined according to single year age groups.
- Benefits may not be used until the third anniversary after the First Payment Date.
- Prices for “Combo” packages consisting of either (1) four University semesters combined with four Community College semesters or (2) four University Plus semesters combined with four Community College semesters were based on present values assuming the four Community College semesters were used first and as such are not equal to the sum of the separate lump sum prices for four University or University Plus semesters combined with four Community College semesters.
- Monthly and annual installment payments are calculated assuming an interest rate of 7.75 percent.
- A \$3 processing fee per payment for monthly and annual installment payments.

Contract prices are assumed to increase each year by the tuition and fee increase assumption, which is 5.00 percent per year. Prices were not recalculated for future years to take into account the change in the investment return assumption from 6.50 percent to 6.25 percent. Changes in assumptions affect the stabilization fees that were calculated for the 2016-2017 enrollment period.

SECTION E

PLAN PROVISIONS

Plan Provisions

(This is a summary only; the full terms and conditions of the College Illinois!® Prepaid Tuition Program are included in the Illinois Prepaid Tuition Act, 110 ILCS 979 (the “Act”) and ISAC Administrative Rules (23 Ill. Adm. Code 2775, et. seq.) (“ISAC Rules”).

A. Type of Contract

Three types of contracts are available for purchase: Choice 1 - Community College, Choice 2 – University and Choice 3 – University Plus.

B. Benefit

Covered benefits include tuition and mandatory fees at an Illinois public university or community college based on the in-state or in-district undergraduate rate for a full-time student.

Mandatory fees are fees that are required upon enrollment for all students attending the particular institution.

The benefit does not include any optional fees, expenses or cost of supplies.

The benefit shall never be less than the amount paid for the contract.

Benefits are available for use three years after the first payment due date. The plan must be paid in full prior to the use of any benefits. In addition, the beneficiary has up to 10 years from the projected college enrollment date to start using program benefits. Once the beneficiary starts using the prepaid benefits, they have 10 years to finish using benefits.

C. Member Contributions

The Program offers a variety of payment options, including the following:

- Lump Sum;
- 5-year installment plans paid monthly or annually;
- Extended installment plans of 6 to 15 years, depending on age, paid monthly or annually; and
- Down payment options are available for monthly installment plans.

D. Private or Out-of-State Institutions

For beneficiaries attending a private or out-of-state institution, the plan will pay an amount based upon the weighted average tuition and mandatory fees at Illinois public universities or community colleges depending on the type of contract purchased.

E. Scholarship

If a qualified beneficiary is awarded a grant or scholarship that duplicates the benefits covered by a prepaid tuition contract, the purchaser may request a refund in semester installments.

Illinois public university or community college – the installments will be in an amount equal to the current cost of in-state or in-district registration fees at that institution, less any benefits used to pay registration fees not covered by the scholarship and any applicable fees.

Illinois Private Institution or an eligible Out-of-State Institution – the installments will be in an amount equal to the current average mean-weighted credit hour value of registration fees at Illinois public universities or Illinois community colleges, depending on the type of the purchased contract, less any benefits used to pay registration fees not covered by the scholarship and any applicable fees.

F. Not Attending an Institution of Higher Education (Transfer)

Benefits can be transferred to a member of the “family” as defined in Section 529 of the Internal Revenue Code.

Purchasers can also choose to postpone the beneficiary’s use of contract benefits to a later time or receive a refund.

G. Cancellation/Refunds

Refund equal to all contract payments made accumulated with applicable interest, less benefits paid and applicable cancellation fees. (Two percent annual interest is applicable to contracts purchased prior to the 2013/2014 enrollment period. No interest is applicable to contracts purchased during or after the 2013/2014 enrollment period.)

H. Death/Disability of Qualified Beneficiary

Refund equal to the value of the mean-weighted average cost of tuition at the colleges for the type of contract purchased will be made to the purchaser.

I. Other Ancillary Benefits

There are no ancillary benefits.

J. Truth in Tuition

Under Illinois’ Truth-in-Tuition law, enacted with the fall 2004 semester, the state’s 12 public colleges and universities are required to charge incoming resident freshmen a fixed tuition rate for the first four years of college.

K. Changes from Previous Valuation

None.