Michigan Education Trust – Plans B and C

Actuarial Soundness Valuation Report as of September 30, 2022

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December 6, 2022

Ms. Diane Brewer
Executive Director
Michigan Education Trust
430 W. Allegan Street
P.O. Box 30198
Lansing, Michigan 48933

Re: Michigan Education Trust – Plans B and C Actuarial Valuation as of September 30, 2022

Dear Ms. Brewer:

Gabriel, Roeder, Smith & Company ("GRS") has performed an actuarial soundness valuation of the Michigan Education Trust – Plans B and C ("MET") as of September 30, 2022. Although the term "actuarial soundness" is not specifically defined, the purpose of this actuarial valuation is to evaluate the financial status of the program as of September 30, 2022. This report presents the principal results of the actuarial valuation of MET including the following:

- A comparison of the actuarial present value of the obligations for prepaid tuition contracts purchased through September 30, 2022, with the value of the assets associated with the program as of that same date;

- An analysis of the factors which caused the deficit/surplus to change since the prior actuarial valuation; and

- A summary of the actuarial assumptions and methods utilized in the actuarial calculations.

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

The actuarial soundness valuation results set forth in this report are based upon data and information, furnished by MET, concerning program benefits, financial transactions and beneficiaries of MET. We reviewed this information for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by MET. Further, the data and information provided is through September 30, 2022, and does not reflect subsequent market changes. Furthermore, we are not aware of any program changes subsequent to September 30, 2022.

The actuarial soundness valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The actuarial assumptions used in this analysis were based on an experience review for the period from October 1, 2012 to September 30, 2017, and were adopted for use commencing with the September 30, 2018 valuation. The major actuarial assumptions (discount rate and rates of future tuition increases) used in this analysis were provided by and are the responsibility of MET.

Given the current asset allocation and liquidity requirements, the net investment rate of return assumption was changed from 1.20 percent to 2.45 percent effective beginning with the September 30, 2022 valuation.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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. We have performed an analysis of the sensitivity of certain changes in future assumptions.

We believe that the actuarial methods used in this report are reasonable and appropriate for the purpose for which they have been used. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial.

This report is not a recommendation to anyone to participate in MET. GRS makes no representations or warranties to any person participating in or considering participation in MET. Current and future participants should be aware that the promises of MET will only be met if the assets of MET are sufficient to pay its obligations.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Michigan Education Trust – Plans B and C as of September 30, 2022. All calculations have been made in conformity with generally accepted actuarial principles and practices commonly applicable to similar types of arrangements.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Paul T. Wood and James R. Sparks are both 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.

The signing actuaries are independent of MET.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Paul T Wood

Paul T. Wood, ASA, FCA, MAAA
Senior Consultant and Actuary

James R. Sparks

James R. Sparks, ASA, FCA, MAAA
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PTW/JRS:dj

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SECTION A

EXECUTIVE SUMMARY

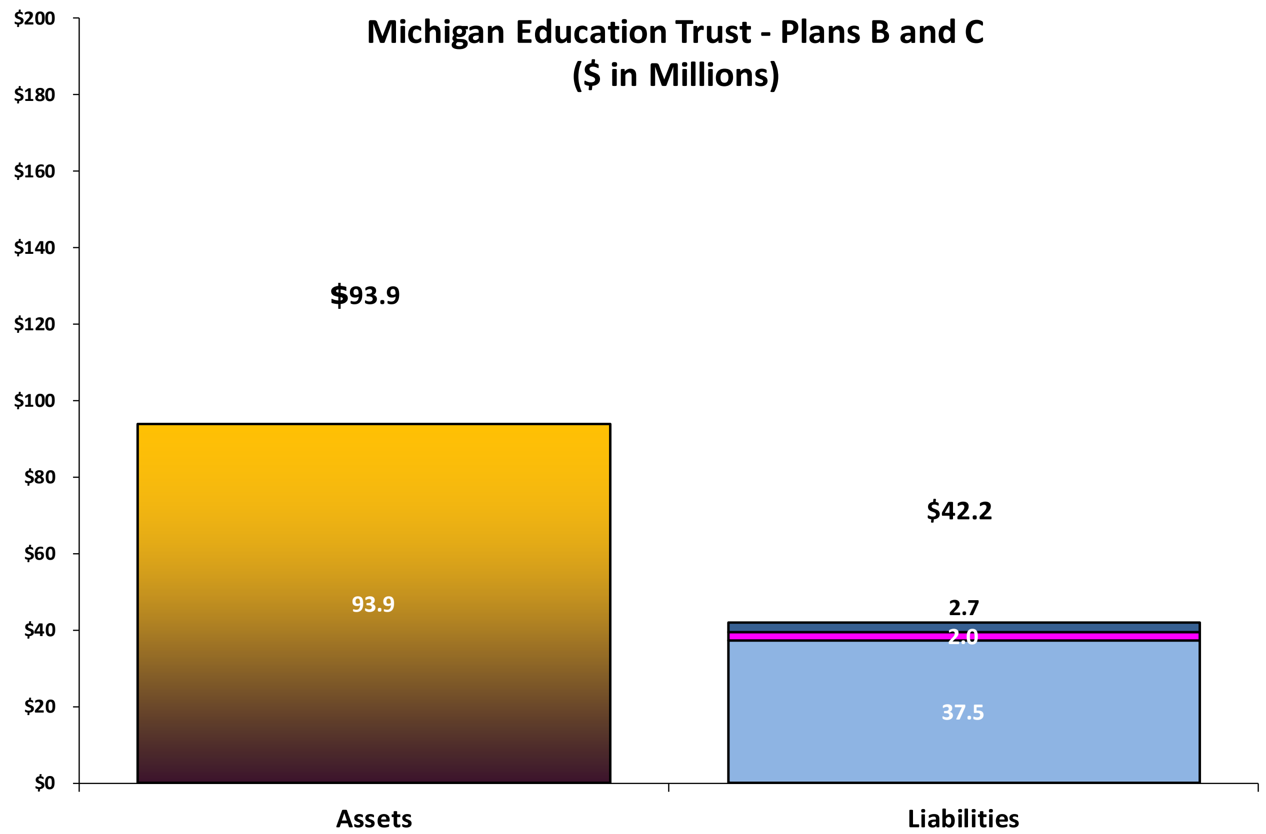
Summary of Results

Principal Valuation Results

	Plan B	Plan C	Plans B and C Combined
Valuation Date:	September 30, 2022	September 30, 2022	September 30, 2022
Contract Summary:			
Counts			
Not yet in Payment Status	1,135	33	1,168
In Payment Status or Termination in Progress*	617	15	632
Total	1,752	48	1,800
Average Years until Expected Matriculation or Refund if not yet in Payment Status or Not Using Contract	7.2	5.8	7.2
Assets			
Valuation Assets (Market Value)	$ 93,026,631	$ 854,317	$ 93,880,948
Approximate Return on MVA for Year Ended September 30, 2022			-11.71%
Actuarial Liabilities (Present Value of Future Tuition Payments, Fees, and Administrative Expenses)	$ 41,870,456	$ 286,813	$ 42,157,269
Surplus/(Deficit)	$ 51,156,175	$ 567,504	$ 51,723,679
Funded Ratio	222.2%	297.9%	222.7%

* *Counts include 483 contracts that are classified as "In Payment Status" but have not used any credits within the past year.*

Summary of Assets and Liabilities as of September 30, 2022



ASSETS

Net Market Value of Assets

LIABILITIES

PV Administrative Fees

PV Benefits (in Payment Status or Termination in Progress)

PV Benefits (Not in Payment Status or Not Using Contract)

Funded Status as of September 30, 2022

	September 30, 2022
Actuarial Present Value of Future Tuition Payments, Fees and Expenses	$ 42,157,269
Market Value of Assets	$ 93,880,948
Surplus/(Deficit) as of September 30, 2022	$ 51,723,679

Gain/Loss Summary

		Surplus/(Deficit)
(1.)	Value at September 30, 2021	$ 59,222,815
(2.)	Interest on (1.) at Assumed Rate from Previous Valuation	$ 710,674
(3.)	Projected Value at September 30, 2022 [(1.) + (2.)]	$ 59,933,489
(4.)	Change Due to:	
	a. Asset Experience	$ (13,989,937)
	b. Tuition/Fee Inflation	$ 175,298
	c. Assumption Changes	$ 5,560,427
	d. Other Experience	$ 44,402
	Total [(4.)a. + (4.)b. + (4.)c. + (4.)d.]	$ (8,209,810)
(5.)	Actual Value at September 30, 2022 [(3.) + (4.)]	$ 51,723,679

Discussion

Actuarial Valuation

Gabriel, Roeder, Smith & Company ("GRS") has performed an actuarial soundness valuation of the Michigan Education Trust – Plans B and C ("MET") as of September 30, 2022.

The primary purposes of the actuarial soundness valuation are to:

- Determine the actuarial present value of the obligations for prepaid tuition contracts purchased through September 30, 2022, and compare such liabilities with the value of the assets associated with the program as of that same date; and
- Analyze the factors which caused the deficit/surplus to change since the prior actuarial valuation.

This report summarizes the results under the current assumptions and also presents the impact of variances in the rate of tuition and fee increases as well as the rate of investment return on assets. In addition, the report provides summaries of the beneficiary data, financial data, plan provisions and actuarial assumptions and methods.

Background

MET is a public body created by Michigan's Legislature (Public Act 316 of 1986) and housed within the Michigan Department of Treasury. MET must operate and finance its activities only through its assets. To protect those assets from other uses by the State, only MET, and not the State, controls its assets. MET allows beneficiaries to mitigate some future tuition and fee risk. The beneficiaries are also eligible for certain federal and state tax advantages.

Three different plan options are available. The **Full Benefits Plan** provides full in-state tuition and mandatory fees at any Michigan public university, or tuition and mandatory fees at Michigan public community colleges (in-district or out-of-district) up to the number of credit hours required for a standard four-year baccalaureate degree (usually 120 semester credit hours). Individuals may purchase the Full Benefits Plan in semester increments up to 10 semesters (five years) of tuition.

The **Limited Benefits Plan** provides in-state tuition and mandatory fees at Michigan public universities, or tuition and mandatory fees at Michigan public community colleges (in-district or out-of-district) up to 105 percent of the weighted average tuition of all Michigan public four-year universities. If a student decides to attend a Michigan public college where tuition costs are higher than average, the number of credits allowed will be prorated based on the number of credit hours MET can purchase with 105 percent of the weighted average cost of Michigan public four-year universities. This plan might not cover the full cost of Michigan's most expensive institutions.

Students who attend a school where tuition is not fully covered under the Limited Benefits Plan will receive the number of credit hours MET can purchase at the time of college enrollment.

For example, on a preliminary basis, in the 2022/2023 school year:

- If a student with a four-year Limited Benefits Plan contract attends the University of Michigan-Ann Arbor, MET will pay for 108 credit hours.
- If a student attends Michigan Technological University, MET will pay for 108 credit hours.

Individuals may purchase the Limited Benefits Plan in semester increments up to 10 semesters (five years).

The **Community College Plan** provides in-district tuition and mandatory fees at Michigan public community colleges. Some areas of the State are not within a community college district. Students who attend a community college out of their district will be responsible for paying the difference between the out-of-district and in-district tuition cost. Individuals may purchase the Community College Plan in semester increments up to ten semesters (five years) under this contract.

MET Plans B and C are closed to new entrants.

Actuarial Assumptions

The actuarial soundness valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The actuarial assumptions used in this analysis were based on an experience review for the period from October 1, 2012 to September 30, 2017, and were adopted for use commencing with the September 30, 2018 actuarial soundness valuation. The major actuarial assumptions (discount rate and rates of future tuition increases) used in this analysis were provided by and are the responsibility of MET.

In the previous actuarial soundness valuation as of September 30, 2021, a discount rate assumption of 1.20 percent and a tuition increase assumption of 4.50 percent were used. Each year, the discount rate and tuition increase assumption are reviewed for reasonableness. Staff at the Department of Treasury then recommends updated assumptions to the MET Board. The recommended assumptions for the actuarial soundness valuation as of September 30, 2022 are as follows:

- Discount Rate: 2.45 percent.
- Tuition Increase Assumption: 4.50 percent for all future years.

In summary, the discount rate was increased from 1.20 percent to 2.45 percent. The tuition increase assumption was unchanged from 4.50 percent.

The MET Board approved these assumptions for use in the September 30, 2022 actuarial soundness valuation at its August 3, 2022 meeting. The impact of the change in assumptions is shown in Exhibit II on page B-3.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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. We have performed an analysis of the sensitivity of certain changes in future assumptions.

Financial Status of Program

As of September 30, 2022, the present value of all future tuition obligations under contracts outstanding (and including estimated future administrative expenses) at that date is $42.2 million. Fund assets as of September 30, 2022, including only the market value of program assets, are $93.9 million.

The difference between the market value of assets of $93.9 million and program obligations of $42.2 million represents a program surplus of $51.7 million. The comparable program surplus as of the last actuarial soundness valuation as of September 30, 2021 was $59.2 million.

Under the approved assumptions, the program is 222.7 percent funded and is expected to pay all contracted benefits.

Gain/Loss Analysis

As previously described, the program surplus decreased from $59.2 million as of September 30, 2021 to $51.7 million as of September 30, 2022. This decrease in the surplus was primarily attributed to the return on investments earning less than the assumed 1.20 percent.

Benefit Provisions

We understand there were no changes in the program provisions since the last actuarial valuation as of September 30, 2021.

Assets

MET assets are held in trust. MET provided the asset information used in the September 30, 2022 actuarial valuation.

This report contains several exhibits summarizing the plan's assets, including a summary of the market value of assets broken down by asset category and a reconciliation of the assets from the last actuarial soundness valuation date to the current valuation date.

SECTION B

ACTUARIAL SOUNDNESS VALUATION RESULTS

Exhibit I
Principal Valuation Results as of September 30,

	2022	2021
1. Number of Contracts		
a. Not yet in Payment Status	1,168	1,211
b. In Payment Status or Termination in Progress*	632	958
c. Total	1,800	2,169
Average Years until Expected Matriculation or Refund if Not Yet In Payment Status	7.2	6.6
2. Assets		
a. Market Value of Assets (in Trust)	$ 93,880,948	$ 110,207,451
b. PV Future Contract Contributions	-	-
c. Total Market Value of Assets (MVA)	$ 93,880,948	$ 110,207,451
3. Actuarial Results		
Liabilities - Tuition and Fees		
a. Not yet in Payment Status or Not Using Contract	$ 37,468,299	$ 45,203,384
b. In Payment Status or Termination in Progress	1,955,450	2,639,681
c. Total	$ 39,423,749	$ 47,843,065
Liabilities - Present Value of Future Administrative Expenses	$ 2,733,520	$ 3,141,571
Liabilities Total	$ 42,157,269	$ 50,984,636
Surplus/(Deficit)	$ 51,723,679	$ 59,222,815
Funded Ratio	222.7%	216.2%

* *Counts for 2022 include 483 contracts that are classified as "In Payment Status" but have not used any credits within the past year.*

Exhibit I
Principal Valuation Results as of September 30, (Concluded)

	2022	2021
1. Market Value of Assets (in Trust)	$ 93,880,948	$ 110,207,451
2. Actuarial Present Value of Tuition, Fees and Admin Expenses		
a. Short Term[a]	$ 1,969,800	$ 2,550,059
b. Long Term[b]	$ 40,187,469	$ 48,434,577
c. Total	$ 42,157,269	$ 50,984,636
Surplus/(Deficit)	$ 51,723,679	$ 59,222,815
Funded Ratio	222.7%	216.2%

[a] *Present value of amounts in following year.*

[b] *Present value of amounts after first year.*

Exhibit II
Gain/Loss Summary

	Present Value of Benefits	Valuation Assets	Surplus/(Deficit)
(1.) Values at September 30, 2021	$ 50,984,636	$ 110,207,451	$ 59,222,815
(2.) Contributions/Miscellaneous Income	$ -	$ -	$ -
(3.) Benefit Payments and Administrative Expenses	$ (3,637,297)	$ (3,637,297)	$ -
(4.) Interest on (1.), (2.), and (3.) at Assumed Rate from Previous Valuation	$ 590,057	$ 1,300,731	$ 710,674
(5.) Projected Values at September 30, 2022 [(1.) + (2.) + (3.) + (4.)]	$ 47,937,396	$ 107,870,885	$ 59,933,489
(6.) Change Due to:			
a. Asset Experience	$ -	$ (13,989,937)	$ (13,989,937)
b. Tuition/Fee Inflation	$ (175,298)	$ -	$ 175,298
c. Assumption Changes	$ (5,560,427)	$ -	$ 5,560,427
d. Other Experience	$ (44,402)	$ -	$ 44,402
Total [(6.)a. + (6.)b. + (6.)c. + (6.)d.]	$ (5,780,127)	$ (13,989,937)	$ (8,209,810)
(7.) Actual Values at September 30, 2022 [(5.) + (6.)]	$ 42,157,269	$ 93,880,948	$ 51,723,679

Exhibit III
Sensitivity Testing Results

The actuarial assumptions regarding future increases in tuition costs and fees and the future rate of investment return were prescribed to us by MET. In our opinion, the actuarial assumptions prescribed to us are reasonable for the purpose of the measurement. However, no one knows with certainty what the future holds with respect to economic and other contingencies. For example, while it is assumed that the assets of the fund will earn 2.45 percent each year throughout the life of the contracts, actual returns are expected to vary from year to year. Therefore, we have projected MET results under alternative assumptions for future investment income and tuition increases, as follows:

1. Current actuarial soundness valuation assumptions approved by the MET Board (2.45 percent investment return, 4.50 percent tuition increases).
2. Tuition increases are 100 basis points higher/lower in each future year than assumed in this year's actuarial soundness valuation.
3. The investment return is 100 basis points higher/lower in each future year than assumed in this year's actuarial soundness valuation.
4. Tuition increases are 100 basis points higher and the investment return is 100 basis points lower in each future year than assumed in this year's actuarial soundness valuation.
5. Tuition increases are 100 basis points lower and the investment return is 100 basis points higher in each future year than assumed in this year's actuarial soundness valuation.

The impact of each of these scenarios on the principal actuarial soundness valuation results is presented on the following page.

Exhibit III
Sensitivity Testing Results (Continued)
$ in Millions

		Current Valuation Assumptions	Assumed Tuition Increases +100 Basis Points	Assumed Tuition Increases -100 Basis Points	Assumed Investment Return +100 Basis Points	Assumed Investment Return -100 Basis Points	Assumed Tuition Increases +100 Basis Points and Investment Return -100 Basis Points	Assumed Tuition Increases -100 Basis Points and Investment Return +100 Basis Points
	Assumed Investment Return	2.45%	2.45%	2.45%	3.45%	1.45%	1.45%	3.45%
	Assumed Tuition Increases	4.50%	5.50%	3.50%	4.50%	4.50%	5.50%	3.50%
1	Assets							
	a. Market Value of Assets (in Trust)	$93.9	$93.9	$93.9	$93.9	$93.9	$93.9	$93.9
	b. PV Future Contract Contributions	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
	c. Total Market Value of Assets (MVA)	$93.9	$93.9	$93.9	$93.9	$93.9	$93.9	$93.9
2	Actuarial Results							
	Liabilities - Tuition and Fees							
	a. Not yet in Payment Status or Not Using Contract	$37.5	$41.0	$34.3	$33.9	$41.6	$45.7	$31.2
	b. In Payment Status or Termination in Progress	$2.0	$2.0	$1.9	$1.9	$2.0	$2.0	$1.9
	c. Total	$39.4	$43.0	$36.2	$35.8	$43.6	$47.7	$33.1
	Liabilities - PV of Future Admin. Expenses	$2.7	$2.7	$2.7	$2.6	$2.9	$2.9	$2.6
	Liabilities Total	$42.2	$45.7	$38.9	$38.4	$46.5	$50.6	$35.7
	Surplus/(Deficit)	$51.7	$48.1	$55.0	$55.5	$47.4	$43.2	$58.2
	Funded Ratio	222.7%	205.3%	241.3%	244.4%	201.9%	185.4%	263.3%
	Difference from Results Based on Current Assumptions							
	Surplus	$0.0	$ (3.6)	$3.3	$3.8	$ (4.3)	$ (8.5)	$6.5
	Funded Ratio	0.0%	(17.4%)	18.6%	21.7%	(20.8%)	(37.3%)	40.6%

Numbers may not add due to rounding.

GRS

SECTION C

FUND ASSETS

Statement of Plan Assets
Year Ended September 30, 2022
(Assets at Market Value)

1. Cash and cash equivalents	$	11,814,842
2. Investments		
a. Short-term investments	$	-
b. Unamortized discount on short-term investments		-
c. Bonds		78,546,853
d. Equity mutual funds		5,647,238
Total investments	$	84,194,091
3. Deferred Outflows of Resources		
a. Pension Deferred Outflows of Resources	$	34,197
b. Health Insurance OPEB Deferred Outflows of Resources		42,728
c. Life Insurance OPEB Deferred Outflows of Resources		8,289
Total	$	85,213
4. Receivables		
a. Advances to state general fund	$	-
b. Interest and dividends receivable		558,396
c. Due from Plan D		10,200
Total receivables	$	568,596
5. Liabilities		
a. Due to Plan D	$	2,094,008
b. Compensated absences		-
c. Pension Liability		271,485
d. Health Insurance OPEB Liability		169,515
e. Life Insurance Healthcare OPEB Liability		48,726
Total liabilities	$	2,583,734
6. Deferred Inflows of Resources		
a. Pension Deferred Inflows of Resources	$	36,401
b. Health Insurance OPEB Deferred Inflows of Resources		9,754
c. Life Insurance OPEB Deferred Inflows of Resources		151,905
Total	$	198,060
5. Net assets = (1) + (2) + (3) + (4) - (5) - (6)	$	93,880,948

Numbers may not add due to rounding.

Reconciliation of Plan Assets
Year Ended September 30, 2022

1. Value of assets at beginning of year	$	110,207,451
Market value adjustment		(958)
Market value of assets at beginning of year	$	110,206,493
2. Changes during year		
a. Additions		
(1) Investment income	$	2,441,607
(2) Miscellaneous income		-
(3) Net gain on sale of security		(78,881)
Total Additions = (1) + (2) + (3)	$	2,362,726
b. Deductions		
(1) Administrative and other expenses	$	1,551,626
(2) Amounts paid under contracts		
(a) Tuition benefits	$	717,599
(b) Termination benefits		
[1] Paid to colleges	$	216,939
[2] Loan defaults/Death refunds		(146,612)
[3] Paid to refund designee		1,297,745
Total termination benefits	$	1,368,072
Total paid under contracts = (a) + (b)		2,085,671
Total Deductions = (1) + (2)	$	3,637,297
c. Unrealized appreciation (depreciation)	$	(15,050,975)
Net increases (decreases) during year = a - b + c	$	(16,325,545)
Net value of assets at end of year = 1 + 2	$	93,880,948

Numbers may not add due to rounding.

SECTION D

PARTICIPANT DATA

Historical Summary as of September 30, 2022

	2022	2021	2020	2019	2018
Number of Contracts					
Full benefits	1,739	2,093	2,591	3,182	3,803
Limited benefits	13	13	13	16	16
Community college	48	63	78	94	108
Total	**1,800**	**2,169**	**2,682**	**3,292**	**3,927**
Assets					
Market value	**$93,880,948**	**$110,207,451**	**$113,127,417**	**$114,905,093**	**$111,201,811**

Contract Data Summary

	Lump Sum			Monthly Purchase			
	Full Benefits	Limited Benefits	Community College	Full Benefits	Limited Benefits	Community College	Total
Total as of 9/30/2021	1,969	13	61	124	0	2	2,169
Adjustment for prior years	(175)	0	(10)	(21)	0	(1)	(207)
New contracts issued	0	0	0	0	0	0	0
Contracts paid in full	(146)	0	(4)	(12)	0	0	(162)
Total as of 9/30/2022	**1,648**	**13**	**47**	**91**	**0**	**1**	**1,800**

To our knowledge, all participants covered by monthly purchases have fully paid their contract obligations.

Contracts in Payment Status as of September 30, 2022

	Full Benefits Contracts	Limited Benefits Contracts	Community College Contracts	Total
1. Michigan Public 4-Year College				
Central Michigan University	30	0	0	30
Eastern Michigan University	24	0	0	24
Ferris State University	14	0	0	14
Kendall Art & Design of Ferris	2	0	0	2
Grand Valley State University	32	0	0	32
Lake Superior State University	3	0	0	3
Michigan State University	96	0	0	96
Michigan Technological University	8	0	0	8
Northern Michigan University	10	0	0	10
Oakland University	27	0	0	27
Saginaw Valley State University	6	0	0	6
University of Michigan - Dearborn	10	0	0	10
University of Michigan - Flint	4	0	0	4
University of Michigan - Ann Arbor	95	0	0	95
Wayne State University	30	0	0	30
Western Michigan University	26	0	0	26
Total Michigan Public 4-Year College	**417**	**0**	**0**	**417**

Contracts in Payment Status as of September 30, 2022
(Continued)

	Full Benefits Contracts	Limited Benefits Contracts	Community College Contracts	Total
2. Michigan Community College				
Alpena Community College	0	0	0	0
Bay De Noc Community College	1	0	0	1
Delta College	3	0	1	4
Glen Oaks Community College	0	0	0	0
Gogebic Community College	0	0	0	0
Grand Rapids Community College	4	0	1	5
Henry Ford Community College	5	0	0	5
Jackson Community College	3	0	1	4
Kalamazoo Valley Community College	6	0	1	7
Kellogg Community College	1	0	1	2
Kirtland Community College	0	0	0	0
Lake Michigan Community College	1	0	0	1
Lansing Community College	14	0	2	16
Macomb County Community College	6	1	1	8
Mid-Michigan Community College	3	0	0	3
Monroe Community College	2	0	0	2
Montcalm Community College	0	0	0	0
Mott Community College	4	1	1	6
Muskegon Community College	1	0	0	1
North Central Michigan College	2	0	0	2
Northwestern Michigan College	3	0	0	3
Oakland Community College	12	0	2	14
Schoolcraft College	11	0	1	12
Southwestern Michigan College	0	0	0	0
St. Clair County Community College	3	0	0	3
Washtenaw Community College	8	0	1	9
Wayne County Community College	2	0	0	2
West Shore Community College	0	0	0	0
Total Michigan Community College	**95**	**2**	**13**	**110**
Total Active Contracts (1.) + (2.)	**512**	**2**	**13**	**527**

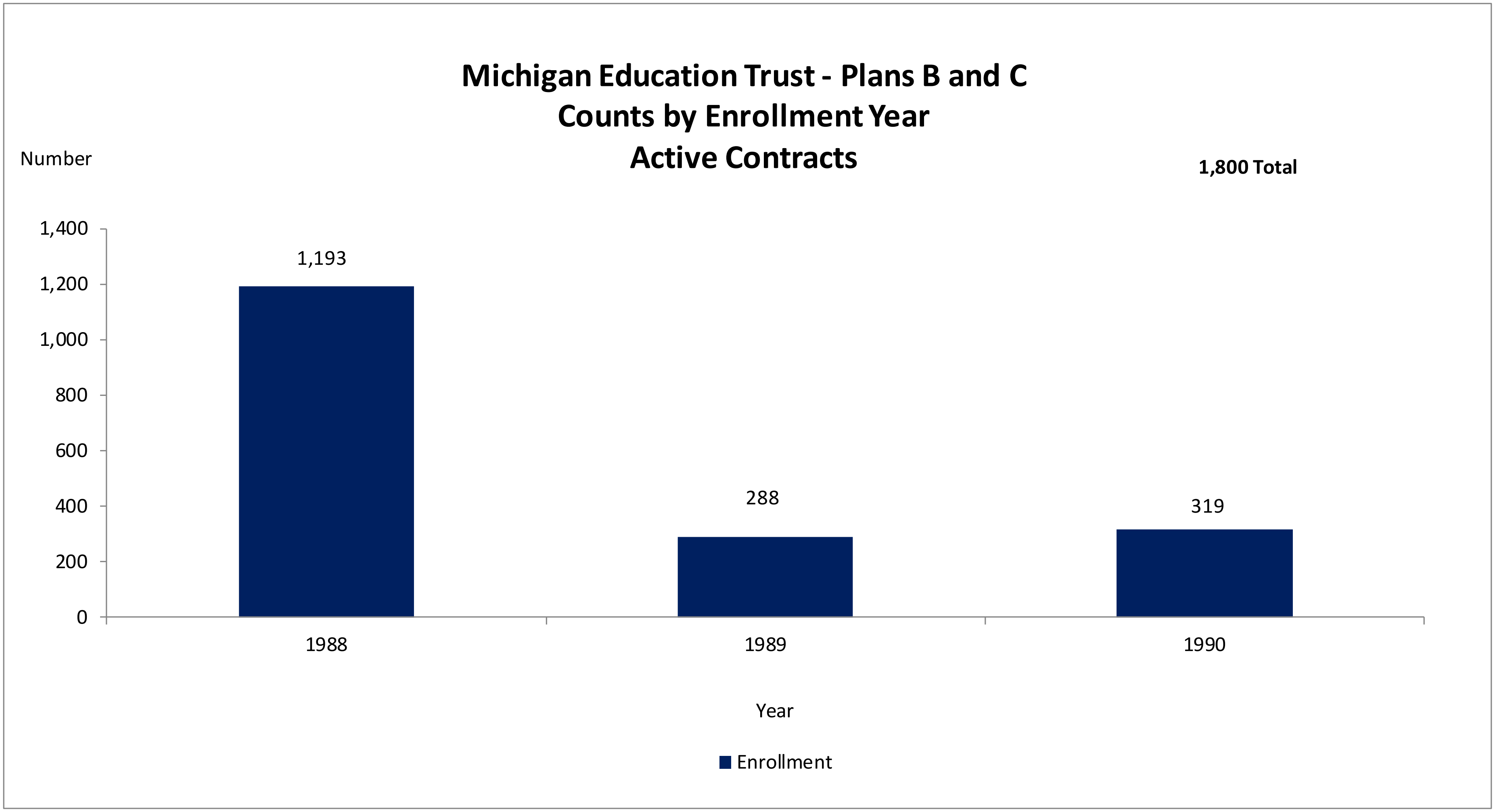
Contracts in Payment Status as of September 30, 2022 (Concluded)

	Full Benefits Contracts	Limited Benefits Contracts	Community College Contracts	Total
3. Terminations in Progress				
Reason:				
Michigan Independent College	23	0	1	24
Out-of-State/Pay College	45	0	0	45
Out-of-State/Pay Refund Designee	0	0	0	0
Full Scholarship	1	0	0	1
Not Attending College	17	1	0	18
Death, Disability & Hardship	0	0	0	0
Attending Community College with Full/Limited Benefits Contract	0	0	1	1
Attending 4-year College with Community College Contract	12	1	0	13
Other (Military)	0	0	0	0
Total Terminations in Progress	**98**	**2**	**2**	**102**
4. Inactive Students	**3**	**0**	**0**	**3**
Grand Total, Contracts in Payment Status (1.) + (2.) + (3.) + (4.)*	**613**	**4**	**15**	**632**
5. Not Yet in Payment Status	**1,126**	**9**	**33**	**1,168**
Grand Total, Active Contracts (1.) + (2.) + (3.) + (4.) + (5.)	**1,739**	**13**	**48**	**1,800**

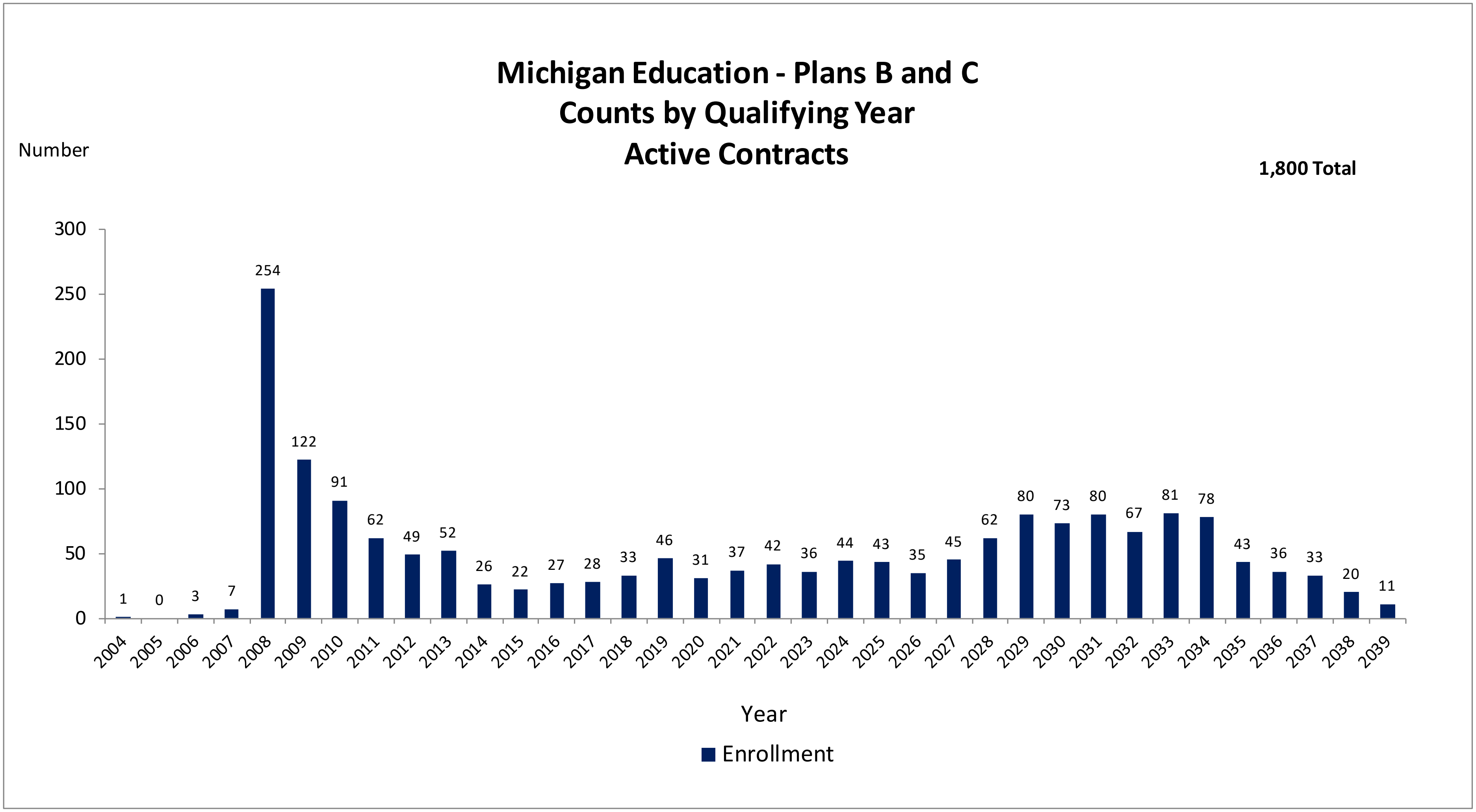
* *Counts for 2022 include 483 contracts that are classified as "In Payment Status" but have not used any credits within the past year.*

Contracts Paid in Full in the Year Ending September 30, 2022

	Lump Sum			Monthly Purchase			
	Full Benefits	Limited Benefits	Community College	Full Benefits	Limited Benefits	Community College	Total
1. Attended Public Colleges	67	0	0	6	0	0	73
2. Terminations							
Michigan Independent College	11	0	0	1	0	0	12
Out-of-State/Pay College	25	0	0	0	0	0	25
Out-of-State/Pay Refund Designee	0	0	1	0	0	0	1
Full Scholarship	0	0	0	0	0	0	0
Not Attending College	38	0	2	4	0	0	44
Disability/Death	1	0	0	0	0	0	1
Attending Community College with Full/Limited Benefits Contract	0	0	1	0	0	0	1
Attending 4-year College with Community College Contract	3	0	0	1	0	0	4
Other (Military)	1	0	0	0	0	0	1
Total Terminations	79	0	4	6	0	0	89
Total Contracts Paid in Full	**146**	**0**	**4**	**12**	**0**	**0**	**162**



Michigan Education Trust - Plans B and C
Counts by Enrollment Year
Active Contracts
Number
1,800 Total
1,400
1,200
1,000
800
600
400
200
0
1,193
288
319
1988
1989
1990
Year
Enrollment


Michigan Education - Plans B and C
Counts by Qualifying Year
Active Contracts
Number
1,800 Total
300
250
200
150
100
50
0
1
0
3
7
254
122
91
62
49
52
26
22
27
28
33
46
31
37
42
36
44
43
35
45
62
80
73
80
67
81
78
43
36
33
20
11
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
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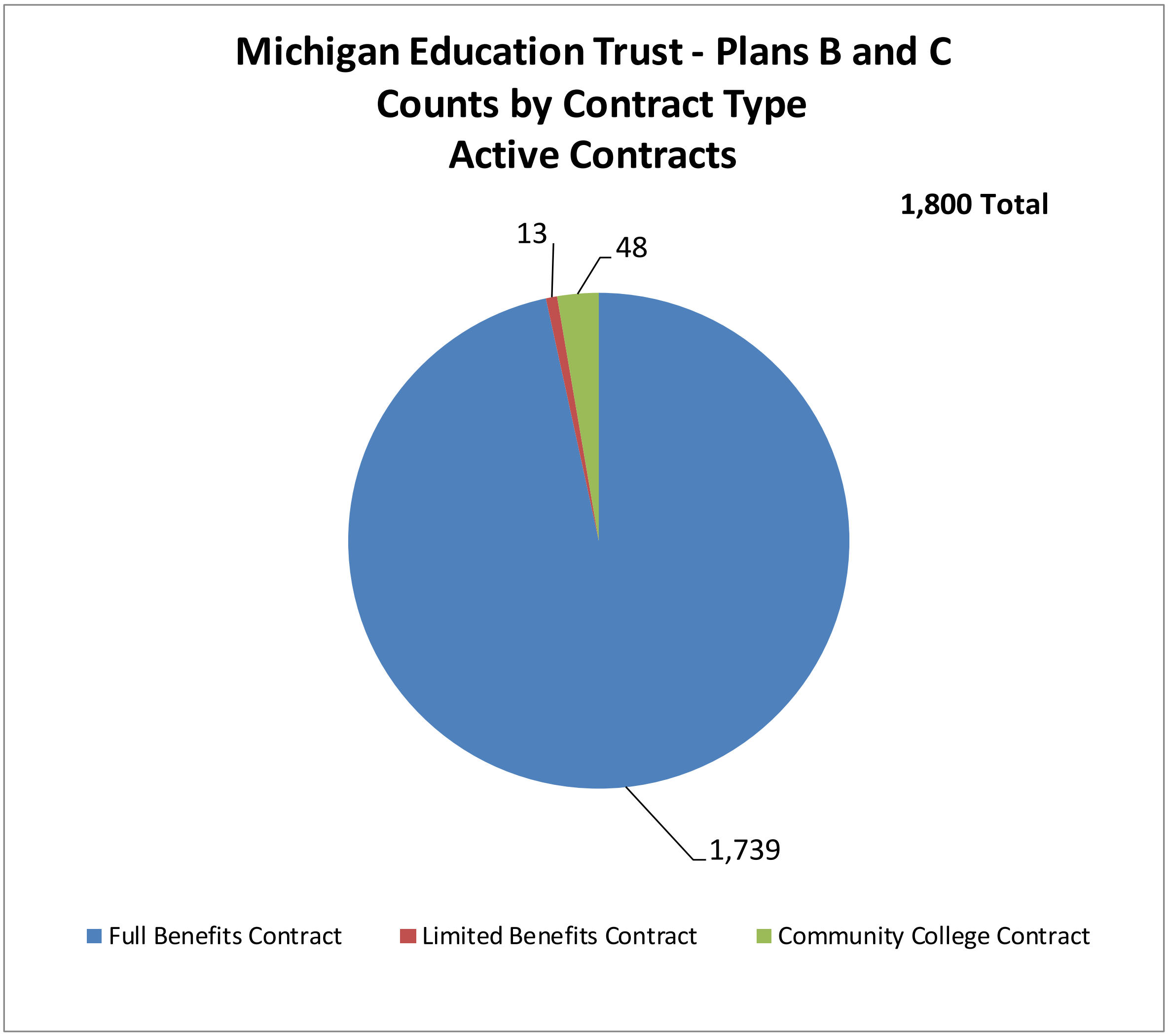
2036
2037
2038
2039
Year
Enrollment


Michigan Education Trust - Plans B and C
Counts by Contract Type
Active Contracts
1,800 Total
13
48
1,739
Full Benefits Contract
Limited Benefits Contract
Community College Contract

SECTION E

ACTUARIAL SOUNDNESS VALUATION METHODS AND ASSUMPTIONS

Valuation Methods and Assumptions

The actuarial assumptions used in the valuation are shown in this section.

Measurement Date: September 30, 2022

The net investment return rate: 2.45 percent per annum, compounded annually

Weighted Average Tuition and Increases by Contract Type

	Four-Year Public College	Community College
Weighted Average Tuition and Fees	$16,024	$4,364
Average Tuition and Fees	$15,613	$4,809
Lowest Tuition and Fees	$13,046	$3,410
Tuition and Fees Increase Assumption	4.50%	4.50%

The Weighted Average Tuition and Fees used in the actuarial soundness valuation are based on preliminary tuition and fees for 2022/2023.

The Tuition and Fee increase assumptions were chosen by the Board and consider historical public tuition and fee inflation over a 5- to 10-year horizon, as well as current economic and political conditions.

Administrative Expenses

Administrative expenses of the Program are assumed to be paid through a combination of investment earnings and fees assessed on purchasers. Total administrative expenses budgeted for MET Plans B and C and MET Plan D net of advertising expenses is equal to $4,933,624. This amount was prorated by the number of active contracts in MET Plans B and C vs. MET Plan D. Therefore, the amount budgeted for MET Plans B and C in 2022/2023 is $263,072.

Bias Load

A load of 4.0 percent was added for full benefits four-year public universities, 1.0 percent was added for limited benefits four-year public universities and zero percent for two-year community colleges is added to the WAT for all contract types to recognize the bias toward enrollment at more expensive schools.

Experience Load

Two features of the program may cause greater payments than expected. These two features are a) the ability of a beneficiary to attend a college for which block pricing is in effect resulting in the possibility of having the program pay for more years than purchased and b) the ability of a beneficiary to have more than 120 hours covered (even though, for example, four years of coverage was purchased) due to being in a specific program requiring more than 120 hours for an undergraduate degree (e.g., Engineering). A load of 2.0 percent was added to all liabilities attributable to contracts sold prior to the 2013 enrollment period and no experience load for contracts sold during and after the 2013 enrollment period.

Future Contract Sales

MET Plans B and C are closed to new entrants.

Rates of Matriculation and Refund At and Beyond Qualifying Year

Beneficiaries are assumed to either matriculate or receive a refund according to the following schedule:

Years after Qualifying Year	Matriculation and Refund Rate
0	40%
1	35%
2	35%
3	30%
4	20%
5	10%
6	10%
7	7%
8	7%
9	7%
10	7%
11	7%
12	7%
13	7%
14	7%
15	100%

Probability of Matriculation or Refund upon Transition to Payment Status

Years after Qualifying Year	Matriculation Rate	Refund Rate
0	70%	30%
1	75%	25%
2	75%	25%
3	80%	20%
4	60%	40%
5	50%	50%
6	40%	60%
7	50%	50%
8	30%	70%
9	30%	70%
10	15%	85%
11	20%	80%
12	20%	80%
13	20%	80%
14	20%	80%
15	0%	100%

Utilization of Benefits (applies only to members who have not begun utilizing benefits)

Beneficiaries are assumed to use the benefits as defined in the contract beginning in their qualifying year and subsequently according to the following schedule:

Distribution of Benefit Utilization				
Number of Years Since Benefit Utilization Begins	Number of Years Purchased			
	0 - 1	1 - 2	2 - 3	More than 3
1	50%	25%	17%	13%
2	33%	25%	17%	13%
3	17%	25%	17%	13%
4		13%	17%	13%
5		13%	17%	13%
6			10%	13%
7			7%	13%
8				6%
9				6%

Utilization of Benefits (applies only to members who have begun utilizing benefits)

Once a beneficiary has begun using benefits, it is assumed that beneficiaries will utilize 15 credits per year until benefits are fully depleted.

If the contract beneficiary has matriculated, but the contract beneficiary has not used credits within the past year, the matriculation rates, refund rates and benefit utilization rates that apply to members who have not yet matriculated are assumed.

Contract Terminations

					Distribution of Contract Termination		
Refund Type	Refund	Amount of Refund - Full or Limited Benefits	Amount of Refund - Community College Benefits	Termination Code and Code Description	Full Benefits	Limited Benefits	Community College Benefits
1	Weighted Average Tuition	$ 16,024	$ 4,364	1 - Attend Mich. Independent college direct refund to college	22.0%	12.0%	33.0%
2	Average Tuition*	$ 15,613	$ 4,809	2 - Attend out of state college - direct refund to college 4 - Full scholarship	39.0%	21.0%	22.0%
3	Lowest Tuition	$ 13,046	$ 3,410	3 - Attend Mich. Independent or out of state college - direct refund to designee 5 - Will not attend college 10 - Other (military)	26.0%	38.0%	9.0%
4	Lowest Tuition	$ 13,046	N/A	7 - Purchase full or limited benefit, but attend community college	13.0%	29.0%	0.0%
5	Community College WAT	N/A	$ 4,364	8 - Purchase community college, but attend 4-year public college	0.0%	0.0%	36.0%
6	Lowest Tuition	$ 13,046	$ 3,410	6 - Death or disability	0.0%	0.0%	0.0%
				Average Refund	**$ 14,702**	**$ 13,942**	**$ 4,376**

** Not applicable to Limited Benefits Contracts.*

The Weighted Average Tuition and Fees used in the actuarial soundness valuation are based on preliminary tuition and fees for 2022/2023**.**

Refunds are paid out in accordance with the contract provisions over a period of four years for full and limited benefit contracts and two years for community college contracts.

Inactive Contracts

Assume that this group will take a refund 15 years after their qualifying year based on projected lowest tuition.

Mortality and Disability

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

SECTION F

PLAN PROVISIONS

Plan Provisions

A. Issue Years: 1988, 1989 and 1990

B. Benefit Provisions

1. Full Benefits Plan

a. Michigan Public Four-Year College	Full benefits plan provides for tuition and mandatory fees for the number of years specified in the contract, from one to five years.
b. Community College	If the beneficiary elects to attend a community college, MET will pay the community college tuition cost or the lowest university tuition cost, depending on the options selected by the beneficiary.
c. Michigan Independent College	If the beneficiary elects to attend a Michigan independent college, the contract may be terminated and MET will pay tuition to the independent college based on the weighted average tuition cost. If the payment is not made to the college, the amount will be based on the lowest tuition.
d. Out-of-State College	If the beneficiary elects to attend an out-of-state college, the contract may be terminated and MET will pay to the college four annual installments based on the average tuition cost. If payment is not made to the college, the amount will be based on the lowest tuition.
e. Full Scholarship	If the beneficiary receives a full scholarship, the contract may be terminated and MET will pay four annual installments based on the average tuition cost.
f. Death or Disability	If the beneficiary dies or has a disability which renders the beneficiary incapable of attending college, the contract may be terminated and MET will pay one installment based on the lowest tuition cost.
g. No College	If the beneficiary does not attend college, the contract may be terminated and MET will pay four annual installments based on the lowest tuition cost.

Plan Provisions (Continued)

2. Limited Benefits Plan

a. Michigan Public Four-Year College	Limited benefits plan provides for tuition and mandatory fees for the number of years specified in the contract, from one to four years not to exceed 105% of the WAT. However, if tuition and mandatory fees exceed 105% of the WAT, the beneficiary is provided a reduced number of credit hours.
b. Community College	If the beneficiary elects to attend a community college, MET will pay the community college tuition cost or the lowest university tuition cost, depending on options selected by the beneficiary.
c. Michigan Independent College	If the beneficiary elects to attend a Michigan independent college, the contract may be terminated and MET will provide funds to the independent college based on the weighted average tuition at the colleges with tuition less than 105% of the weighted average tuition. If payment is not made to the college, the amount will be based on the lowest tuition.
d. Out-of-State College	If the beneficiary elects to attend an out-of-state college, the contract may be terminated and MET will pay four annual installments based on the lowest tuition cost.
e. Full Scholarship	If the beneficiary receives a full scholarship, the contract may be terminated and MET will pay four annual installments based on the lowest tuition cost.
f. Death or Disability	If the beneficiary dies or has a disability which renders the beneficiary incapable of attending college, the contract may be terminated and MET will pay one installment based on the lowest tuition cost.
g. No College	If the beneficiary does not attend college, the contract may be terminated and MET will pay four annual installments based on the lowest tuition cost.

Plan Provisions (Continued)

3. Community College Plan	
a. Community College	Community college plan provides for tuition and mandatory fees for the number of years specified in the contract, up to five years.
b. Other Michigan College	If the beneficiary elects to attend a Michigan four-year public college or a Michigan independent college, the contract may be terminated and MET will pay tuition to the college in two annual installments as needed based on the community college weighted average tuition cost in the year prior to the contract termination.
c. Out-of-State College	If the beneficiary elects to attend an out-of-state college, the contract may be terminated and MET will pay to the college two annual installments based on the community college average tuition cost. If payment is not made to the college, the amount will be based on the lowest tuition.
d. Full Scholarship	If the beneficiary receives a full scholarship, the contract may be terminated and MET will pay two annual installments based on the community college average tuition cost.
e. Death or Disability	If the beneficiary dies or has a disability which renders the beneficiary incapable of attending college, the contract may be terminated and MET will pay one installment based on the community college lowest tuition cost.
f. No College	If the beneficiary does not attend college, the contract may be terminated and MET will pay two annual installments based on the community college lowest tuition cost.
C. Transferability	If the contract is transferred to an older beneficiary, MET may charge additional costs, which include a transfer fee, the cost differential between beneficiary ages/grades and MET's loss of investment income. If the older beneficiary accepts the academic year of the original beneficiary, the additional cost can be waived.

Plan Provisions (Concluded)

D. Loans	If a purchaser defaults on a loan secured by the contract, MET will reimburse the savings institution for the default and will reduce the amount of benefits purchased in proportion to the amount remaining after the payment to the savings institution.
E. Monthly Purchase	The purchaser of a monthly purchase contract purchases a percent of educational benefits with every monthly purchase amount which is received by MET. A purchaser may choose to make monthly payments over 4, 7, 10 or 15 years.