

Alabama PACT

3/31/2020 Quarterly Valuation

April 2020

April 2020

Alabama PACT Board

Sherman Actuarial Services, LLC (SAS) was retained to report on the funding status and projected cash flows of PACT as of March 31, 2020. Since this is a quarterly valuation, there is less detail provided than in the full valuation as of September 30, 2019. The Summary of Funding section on page 4 describes the current results and compares those results to the September 30, 2019 valuation.

Assumptions and Methods

1. Data and Assets

The valuation was performed using contract data supplied by the Plan Administrator as of March 31, 2020 and financial data reported to you as of March 31, 2020. SAS did not audit the data although they were reviewed for reasonableness and consistency with the audited September 30, 2019 information. The results of the analysis are dependent on the accuracy of the data.

The asset value as of March 31, 2020 was \$92,856,228.

2. Weighted Average Tuition (WAT)

The assumed WAT values are shown in the following table. The assumed credit hours were unchanged from the September 30, 2019 valuation at 13 hours per semester. The March 31st results are based on the weighting of PACT beneficiaries from recent experience, the 2010 tuition rates, and an increase of 3% as of September 1, 2015, an increase of 6% as of September 1, 2016, an increase of 8% as of September 1, 2017, an increase of 7% as of September 1, 2018 and an increase of 7% as of September 1, 2019.

	September 30, 2019	March 31, 2020
	Valuation	Valuation
Auburn/Alabama	\$10,211	\$10,211
Regional	7,908	7,908
Junior & CC	4,575	4,575
OOS & Private	8,419	8,419

3. Tuition Inflation

For the March 31, 2020 valuation, we assumed a tuition inflation assumption of 0% per year.

4. Investment return

The investment return assumption was unchanged from the September 30, 2019 valuation as shown below.

Fiscal Year <u>Ending</u>	September 30, 2019 <u>Valuation</u>	March 31, 2020 <u>Valuation</u>
2020	1.00%	1.00%
2021	1.00%	1.00%
2022-23	0.00%	0.00%
2024	0.40%	0.40%
2025	1.10%	1.10%
2026	1.70%	1.70%
2027	2.50%	2.50%
2028	2.50%	2.50%

5. Payment of Tuition

The March 31, 2020 valuation assumed usage of 128 credit hours at a rate of 13 hours per semester, which is the same as was assumed for the September 30, 2019 valuation.

6. Education Trust Fund Payments

We assumed total future contributions of \$272,175,100 from the Education Trust Fund into the PACT Trust Fund. These payments have a present value of \$241,014,326.

7. Cancellations

The assumed cancellation of PACT contracts based on the grade of the beneficiary was unchanged from that assumed as of September 30, 2019 and are shown below.

Age 0 through 9th grade	0% per year
10th grade	1%
11th grade	1%
12th grade	1%

8. School Choice

Contract beneficiaries are assumed to attend school according to the probabilities shown in the following table:

<u>College Type</u>	<u>September 30, 2019</u>	<u>March 31, 2020</u>
Private/Out-of-State	17%	17%
Community College	15%	15%
University of Alabama and Auburn University	53%	53%
Other Alabama Universities	15%	15%

9. Administration Expenses

For the March 31, 2020 valuation, we assumed the administrative expenses will be \$300,000 for the remainder of FYE20, \$600,000 for future fiscal years through 2027. From 2028 to 2031 it is lowered \$100,000 per year.

10. Discount Rate

For the March 31, 2020 valuation, we assumed a discount rate of 3.5% to determine the present value of payments to be received and benefits to be paid.

11. Other

All other assumptions and methods are identical to those used in the September 30, 2019 actuarial valuation.

Purpose of This Report

This report is prepared for the PACT Board. It is expected that this report will be used to monitor the funding status and projected cash flows of the PACT. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of SAS.

Qualifications

Daniel Sherman is an Associate of the Society of Actuaries, and a Member of the American Academy of Actuaries. He served as the actuary to the Alabama PACT plan for eleven years, and is the current actuary for the Texas, and West Virginia prepaid tuition programs. He meets the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

SHERMAN ACTUARIAL SERVICES, LLC



Daniel Sherman, ASA, MAAA
CEO and Consulting Actuary

Summary of Funding

The table below is a summary of the results showing the total costs to maintain the program as of March 31, 2020. Note that although the funded status is 124.6%, the cash flow projections show that the fund will need to be monitored in order to maintain sufficient assets.

	September 30, 2019 Annual Valuation	March 31, 2020 Valuation
Assets		
a. Market Value of Assets	97,564,083	92,856,228
b. Present Value of future contract purchaser payments	4,011,668	3,230,480
c. Administrative Expenses	(5,321,480)	(5,048,021)
d. Present Value of Education Trust Fund payments	269,644,592	241,014,326
e. Subtotal (a + b + c + d)	365,898,863	332,053,014
Liabilities		
f. Present Value of tuition and cancellation payments	312,940,496	265,596,009
Funded Status		
g. Reserve (e – f)	52,958,367	66,457,005
h. Funded Ratio	116.6%	124.6%

**Projected Cash Flow
March 31, 2020 Valuation
(thousands)**

Fiscal Year	Benefit Payments	Contract Holder Payments	Education Trust Fund Payments	Admin Expenses	Income	EOY Assets
3/31/2020						\$ 92,900
4/1/20 - 09/30/20	-\$ 10,700	\$ 1,100	\$ 30,700	-\$ 300	\$ 500	114,200
10/01/20 - 09/30/21	-71,300	1,200	31,900	-600	700	76,100
10/01/21 - 09/30/22	-59,800	600	32,200	-600	100	48,600
10/01/22 - 09/30/23	-49,600	300	33,500	-600	-100	32,100
10/01/23 - 09/30/24	-38,500	100	33,700	-600	200	27,000
10/01/24 - 09/30/25	-24,900	0	38,400	-600	400	40,300
10/01/25 - 09/30/26	-14,900	0	39,200	-600	800	64,800
10/01/26 - 09/30/27	-9,900	0	32,500	-600	1,900	88,700
10/01/27 - 09/30/28	-6,600	0	0	-500	2,100	83,700
10/01/28 - 09/30/29	-4,300	0	0	-400	2,000	81,000
10/01/29 - 09/30/30	-2,200	0	0	-300	2,000	80,500
10/01/30 - 09/30/31	-900	0	0	-200	2,000	81,400
10/01/31 - 09/30/32	-100	0	0	-100	2,000	83,200
Total	-\$ 293,700	\$ 3,300	\$ 272,100	-\$ 6,000		

The sum of the values may not match the total shown due to rounding.

Assumptions

- Settlement
- Fall 2010 Tuition rates, increased 3% as of September 1, 2015, 6% as of September 1, 2016, 8% as of September 1, 2017, 7% as of September 1, 2018, 7% as of September 1, 2019
- Tuition Inflation at 0%
- Normal Cancellation rates

Summary of Funding – Potential Increases in Tuition Payments

As done last spring, we examined the effect on the funded status and the cash flow of increases in the tuition payments for the coming Fall term. Included below are the impacts of a 7% and an 8% increase.

The Weighted Average Tuition

	September 30, 2019 Valuation	March 31, 2020 Valuation - 7%
Auburn/Alabama	\$10,211	\$10,926
Regional	7,908	8,461
Junior & CC	4,575	4,896
OOS & Private	8,419	9,008

The table below is a summary of the results showing the total costs to maintain the program as of March 31, 2020 based on a 7% increase. Note that although the funded status is 116.7%, the cash flow projections show that the fund will need to be monitored in order to maintain sufficient assets.

	September 30, 2019 Annual Valuation	March 31, 2020 Valuation – 7%
Assets		
a. Market Value of Assets	97,564,083	92,856,228
b. Present Value of future contract purchaser payments	4,011,668	3,230,480
c. Administrative Expenses	(5,321,480)	(5,048,021)
d. Present Value of Education Trust Fund payments	269,644,592	241,014,326
e. Subtotal (a + b + c + d)	365,898,863	332,053,014
Liabilities		
f. Present Value of tuition and cancellation payments	312,940,496	283,928,879
Funded Status		
g. Reserve (e – f)	52,958,367	48,124,135
h. Funded Ratio	116.6%	116.7%

Projected Cash Flow
March 31, 2020 Valuation – 7% increase
(thousands)

Fiscal Year	Benefit Payments	Contract Holder Payments	Education Trust Fund Payments	Admin Expenses	Income	EOY Assets
3/31/2020						\$ 92,900
4/1/20 - 09/30/20	-\$ 11,400	\$ 1,100	\$ 30,700	-\$ 300	\$ 500	113,500
10/01/20 - 09/30/21	-76,200	1,200	31,900	-600	700	70,500
10/01/21 - 09/30/22	-63,900	600	32,200	-600	0	38,800
10/01/22 - 09/30/23	-53,100	300	33,500	-600	0	18,900
10/01/23 - 09/30/24	-41,100	100	33,700	-600	100	11,100
10/01/24 - 09/30/25	-26,600	0	38,400	-600	100	22,400
10/01/25 - 09/30/26	-15,900	0	39,200	-600	500	45,600
10/01/26 - 09/30/27	-10,500	0	32,500	-600	1,300	68,300
10/01/27 - 09/30/28	-7,100	0	0	-500	1,600	62,300
10/01/28 - 09/30/29	-4,500	0	0	-400	1,400	58,800
10/01/29 - 09/30/30	-2,400	0	0	-300	1,500	57,600
10/01/30 - 09/30/31	-900	0	0	-200	1,400	57,900
10/01/31 - 09/30/32	-100	0	0	-100	1,400	59,100
Total	-\$ 313,700	\$ 3,300	\$ 272,100	-\$ 6,000		

The sum of the values may not match the total shown due to rounding.

Assumptions

- Settlement
- Fall 2010 Tuition rates, increased 3% as of September 1, 2015, 6% as of September 1, 2016, 8% as of September 1, 2017, 7% as of September 1, 2018, 7% as of September 1, 2019, 7% as of September 1, 2020
- Tuition Inflation at 0%
- Normal Cancellation rates

The Weighted Average Tuition

	September 30, 2019 Valuation	March 31, 2020 Valuation – 8%
Auburn/Alabama	\$10,211	\$11,028
Regional	7,908	8,541
Junior & CC	4,575	4,941
OOS & Private	8,419	9,092

The table below is a summary of the results showing the total costs to maintain the program as of March 31, 2020 based on an 8% increase. Note that although the funded status is 115.6%, the cash flow projections show that the fund will need to be monitored in order to maintain sufficient assets.

	September 30, 2019 Annual Valuation	March 31, 2020 Valuation – 8%
Assets		
a. Market Value of Assets	97,564,083	92,856,228
b. Present Value of future contract purchaser payments	4,011,668	3,230,480
c. Administrative Expenses	(5,321,480)	(5,048,021)
d. Present Value of Education Trust Fund payments	269,644,592	241,014,326
e. Subtotal (a + b + c + d)	365,898,863	332,053,014
Liabilities		
f. Present Value of tuition and cancellation payments	312,940,496	286,548,934
Funded Status		
g. Reserve (e – f)	52,958,367	45,504,080
h. Funded Ratio	116.6%	115.6%

Projected Cash Flow
March 31, 2020 Valuation – 8% increase
(thousands)

Fiscal Year	Benefit Payments	Contract Holder Payments	Education Trust Fund Payments	Admin Expenses	Income	EOY Assets
3/31/2020						\$ 92,900
4/1/20 - 09/30/20	-\$ 11,500	\$ 1,100	\$ 30,700	-\$ 300	\$ 500	113,400
10/01/20 - 09/30/21	-76,900	1,200	31,900	-600	700	69,700
10/01/21 - 09/30/22	-64,500	600	32,200	-600	0	37,400
10/01/22 - 09/30/23	-53,600	300	33,500	-600	0	17,000
10/01/23 - 09/30/24	-41,500	100	33,700	-600	100	8,800
10/01/24 - 09/30/25	-26,900	0	38,400	-600	200	19,900
10/01/25 - 09/30/26	-16,100	0	39,200	-600	400	42,800
10/01/26 - 09/30/27	-10,600	0	32,500	-600	1,200	65,300
10/01/27 - 09/30/28	-7,100	0	0	-500	1,500	59,200
10/01/28 - 09/30/29	-4,600	0	0	-400	1,400	55,600
10/01/29 - 09/30/30	-2,400	0	0	-300	1,400	54,300
10/01/30 - 09/30/31	-900	0	0	-200	1,300	54,500
10/01/31 - 09/30/32	-100	0	0	-100	1,300	55,600
Total	-\$ 316,700	\$ 3,300	\$ 272,100	-\$ 6,000		

The sum of the values may not match the total shown due to rounding.

Assumptions

- Settlement
- Fall 2010 Tuition rates, increased 3% as of September 1, 2015, 6% as of September 1, 2016, 8% as of September 1, 2017, 7% as of September 1, 2018, 7% as of September 1, 2019, 8% as of September 1, 2020
- Tuition Inflation at 0%
- Normal Cancellation rates