

# Alabama PACT

## *Financial Study - Settlement*

*May 2011*

May 3, 2011

Alabama PACT Board

Buck Consultants, LLC (Buck) was retained to report on the funding status and projected cash flows of the PACT as of March 31, 2011 under various scenarios.

## Scenarios

Five scenarios were run as described in detail in the Assumptions and Methods section below. Here is a brief description of each.

### Run #1

This run is based on the actuarial assumptions as of the 12/31/2010 quarterly valuation, with the following exceptions:

- The Tuition Costs are based on the Weighted Average Tuition using the Fall 2010 rates certified by the schools.
- Discount rate = 2%
- Utilization = 128 units at 13 units per semester (12/31/2010 quarterly valuation assumed 122 units at 15 units per semester)
- Tuition inflation = 0.0%
- School elections = 53% Auburn & Alabama, 15% Four year regional schools, 15% Community and Junior Colleges, 17% Private and Out-of-State institutions
- Plaintiff's attorney's fees and expenses of \$4,979,500
- Administration expenses of \$1,200,000 per year until 2023, then decreasing \$100,000 per year thereafter

### Run #2

This is the same as Run #1 with the following modifications:

- Contracts with matriculation years during or after 2020 were assumed to request a refund.

### Run #3

This run is identical to Run #2 except:

- Tuition inflation was set to 1.0% per year.

### Run #4

This run is identical to Run #2 except:

- The August 2011 and November 2011 tuition payments are based on the pre-settlement costs and the 12/31/2010 actuarial assumptions

**Run #5**

This run is identical to Run #2 except:

- The Educational Trust Fund payments are replaced with amounts necessary to avoid a negative trust balance

**Assumptions and Methods****1. Data and Assets**

All five scenarios were performed using contract data supplied by the Plan Administrator as of March 31, 2011 and financial data reported to you as of March 31, 2011. Buck did not audit the data although they were reviewed for reasonableness and consistency with the audited September 30, 2010 information. The results of the study are dependent on the accuracy of the data.

The asset value as of 3/31/2011 is \$437,373,027 but \$3,000,000 was subtracted to reflect tuition costs payable for Spring 2011.

**2. Weighted Average Tuition (WAT)**

The WAT was changed to be based on Fall 2010 certified Rates for Tuition and Fees. In addition, the WAT is dependent on how many units are assumed to be used each semester. For this study, we assumed 13 credit hours will be used for each semester.

	12/31/2010 Valuation (15 hours)	Certified Rates (15 hours)
Auburn/Alabama	\$7,722	\$7,722
Regional	5,916	6,695
Junior & CC	2,803	3,407
OOS & Private	6,680	7,151

### 3. Tuition Inflation

The tuition inflation assumption was set at 1.0% for Run #3. All others were set at 0%. For the December 31, 2010 actuarial valuation, the tuition inflation assumptions are as follows:

Fiscal Year Ending	Tuition Inflation			
	Univeristy of Alabama and Auburn University	Other Alabama 4-year Universities	Community Colleges	Private/Out-of-State Univcrsities
2011	13.00%	2.50%	2.50%	8.80%
2012	12.00%	2.50%	2.50%	8.42%
2013	11.00%	2.50%	2.50%	7.97%
2014	10.00%	2.50%	2.50%	7.46%
2015	9.00%	2.50%	2.50%	6.90%
2016	8.00%	2.50%	2.50%	6.30%
2017	7.50%	2.50%	2.50%	6.01%
2018	7.50%	2.50%	2.50%	6.06%
2019	7.50%	2.50%	2.50%	6.11%
2020	7.50%	2.50%	2.50%	6.15%
2021	7.50%	2.50%	2.50%	6.20%
2022	7.50%	2.50%	2.50%	6.24%
2023	7.50%	2.50%	2.50%	6.29%
2024	7.50%	2.50%	2.50%	6.33%
2025	7.50%	2.50%	2.50%	6.37%
2026	7.50%	2.50%	2.50%	6.41%
2027	7.50%	2.50%	2.50%	6.45%
2028	7.50%	2.50%	2.50%	6.49%
2029	7.50%	2.50%	2.50%	6.53%
2030	7.50%	2.50%	2.50%	6.57%

### 4. Investment return

The investment return assumption is as follows.

Fiscal Year Ending	<u>12/31/2010 Valuation</u>	<u>All Runs</u>
2011	2.38%	2.00%
2012	3.00%	2.00%
2013	3.07%	2.00%
2014	2.45%	2.00%
2015+	3.00%	2.00%

## 5. Payment of Tuition

Out of the maximum of either 128 or 135 hours of contract benefits, it was assumed for all Runs that beneficiaries will use 128 units at 13 units per semester. For the 12/31/2010 quarterly valuation it was assumed that 122 credit hours would be used at a rate of 15 hours per semester.

## 6. Education Trust Fund Payments

Similar to the December 31, 2010 valuation, all runs continued to assume total contributions of \$547,629,100 from the Education Trust Fund into the PACT Trust Fund. Under the 2% investment return assumption, these payments have a present value of \$452,263,801. For Run #5 these annual payments were replaced with the amounts such that the asset balances would not become negative.

## 7. Refunds

When contracts are given priority, it is assumed that contract holders will cancel their policies if the value of the expected benefits they would receive under the proposed changes is less than the value of a refund. For Runs #2, #3, #4 and #5 it was found that contract holders with year of matriculation greater than or equal to 2020 are highly likely to cancel. We subtracted their refund value of \$60,555,645 from the assets and contracts with matriculation year after 2019 were not valued (i.e. eliminated from the data). This reduced the assets from \$434,373,027 to \$373,817,382.

The threshold year where contract holders are more likely to cancel their contracts than matriculate cannot be calculated with certainty. It depends on the rate of return contract holders think they can earn on their investments. The 2020 threshold was based on the assumption that contract holders will be able to earn 8% by investing the money themselves. If a 7% assumption were used, the cut-off year would increase to 2021. Changing to 2021 decreases the funded ratio by 1.2% to 99.1%, but helps the cash flow. At the end of fiscal year 2015, the shortfall decreases from \$23.3 million to \$4.5 million.

## 8. School Choice

Based on recent trends, we assumed that contract beneficiaries attend school according to the following table:

<u>College Type</u>	<u>December 31, 2010</u>	<u>All Runs</u>
Private/Out-of-State	9.00%	17%
Community College	16.00%	15%
University of Alabama and Auburn University	57.36%	53%
Other Alabama Universities	17.63%	15%
Total	100.00%	100%

## 9. Administration Expenses

We assumed the administrative expenses were \$600,000 in FY2011, \$1,200,000 for FY 2012-2025, thereafter decreasing by \$100,000 per year until the plan is exhausted.

## 10. Legal fees

We assumed plaintiff's attorney's fees and expenses of \$4,979,500 were payable in 2011. No administrative expenses or legal fees were assumed in the 12/31/2010 quarterly valuation.

## 11. Other

All other assumptions and methods are identical to those used in the December 31, 2010 actuarial valuation.

### Purpose of This Report

This report is prepared for The State of Alabama 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 Buck.


### Funded Status and Cash Flow

The tables that follow show the funded status and the cash flow projections for each the five Runs.

### 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 ten years, and is the current actuary for the Texas 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.

BUCK CONSULTANTS, LLC



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Daniel Sherman, ASA, MAAA, EA  
Director and Consulting Actuary

## Run #1

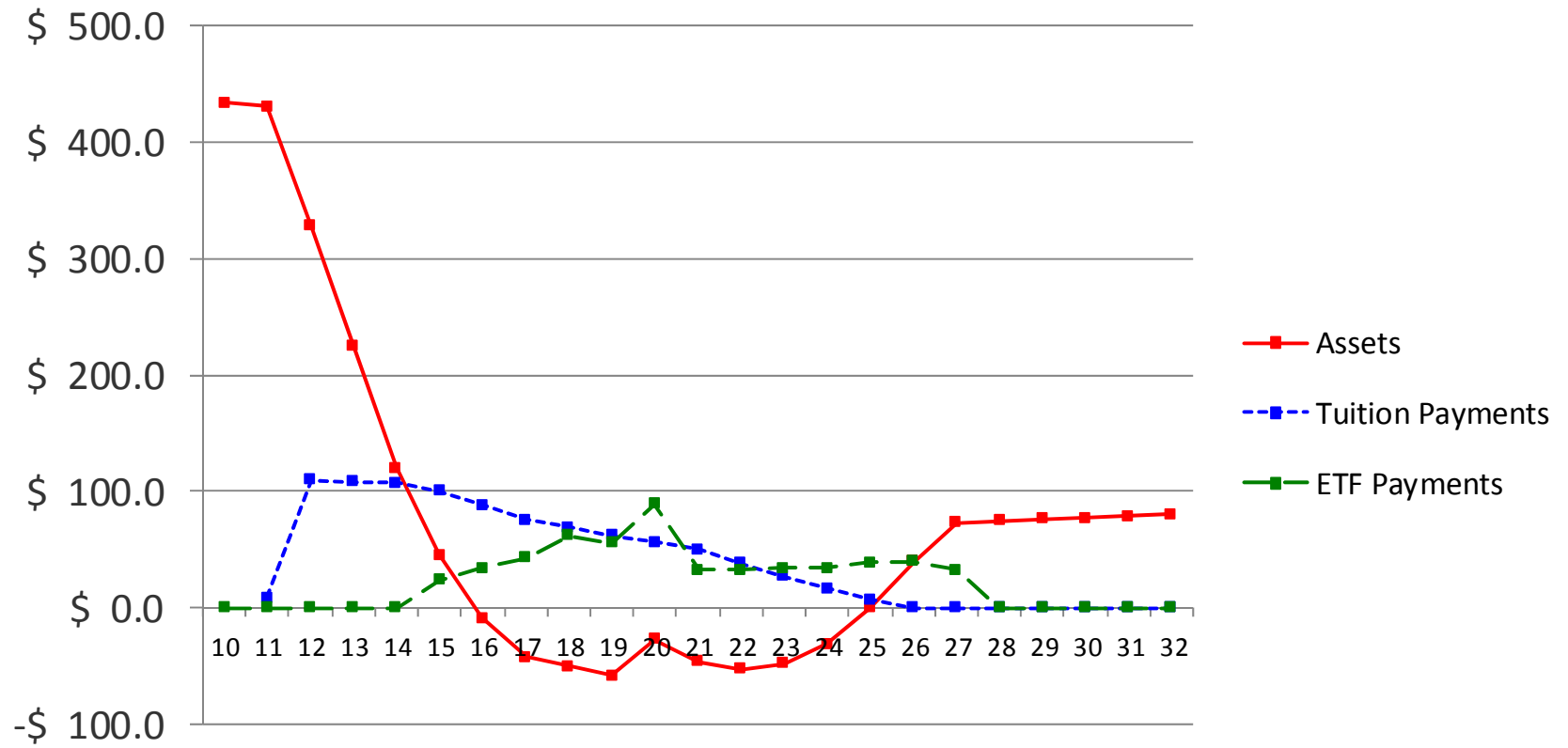
<b>Current Assets</b>	434,373,027	<b>PV of Tuition payments</b>	855,848,348
<b>PV of Contractholder payments</b>	21,756,990		
<b>PV of Education Trust Fund Payments</b>	452,263,801	<b>Surplus/ (Deficit)</b>	36,978,136
<b>Administrative Expenses</b>	-15,567,334	<b>Funded Ratio</b>	104.3%
<b>Total Assets</b>	892,826,484		

(\$ Millions)

Fiscal Year	Education					EOY Assets
	Benefit Payments	Contract Holder Payments	Trust Fund Payments	Admin Expenses	Income	
10/01/10 - 03/31/11						\$ 434.4
04/01/11 - 09/30/11	-\$ 13.3	\$ 5.2	\$ 0.0	-\$ 0.6	\$ 4.9	430.6
10/01/11 - 09/30/12	-114.9	5.0	0.0	-1.2	8.4	327.9
10/01/12 - 09/30/13	-111.8	3.5	0.0	-1.2	6.3	224.7
10/01/13 - 09/30/14	-110.1	2.7	0.0	-1.2	4.2	120.3
10/01/14 - 09/30/15	-102.4	2.1	23.6	-1.2	2.5	44.9
10/01/15 - 09/30/16	-89.6	1.7	34.0	-1.2	1.3	-8.9
10/01/16 - 09/30/17	-76.7	1.2	42.6	-1.2	0.4	-42.6
10/01/17 - 09/30/18	-69.5	0.8	61.8	-1.2	0.2	-50.5
10/01/18 - 09/30/19	-62.6	0.5	55.5	-1.2	-0.1	-58.4
10/01/19 - 09/30/20	-56.8	0.2	88.7	-1.2	0.2	-27.3
10/01/20 - 09/30/21	-50.1	0.0	31.9	-1.2	0.3	-46.4
10/01/21 - 09/30/22	-38.0	0.0	32.2	-1.2	0.1	-53.3
10/01/22 - 09/30/23	-27.0	0.0	33.5	-1.2	0.1	-47.9
10/01/23 - 09/30/24	-16.5	0.0	33.7	-1.1	0.3	-31.5
10/01/24 - 09/30/25	-7.0	0.0	38.4	-1.0	0.7	-0.4
10/01/25 - 09/30/26	0.0	0.0	39.2	-0.9	1.3	39.2
10/01/26 - 09/30/27	0.0	0.0	32.5	0.0	1.1	72.8
10/01/27 - 09/30/28	0.0	0.0	0.0	0.0	1.5	74.3
10/01/28 - 09/30/29	0.0	0.0	0.0	0.0	1.5	75.8
10/01/29 - 09/30/30	0.0	0.0	0.0	0.0	1.5	77.3
10/01/30 - 09/30/31	0.0	0.0	0.0	0.0	1.5	78.8
10/01/31 - 09/30/32	0.0	0.0	0.0	0.0	1.6	80.4
<b>Total</b>	<b>-946.3</b>	<b>22.9</b>	<b>547.6</b>	<b>-\$ 18.0</b>		

# PACT Actuarial Status April 2011 – Run #1

Millions



## Run #2

<b>Current Assets</b>	373,817,382	<b>PV of Tuition payments</b>	827,459,138
<b>PV of Contractholder payments</b>	18,811,147		
<b>PV of Education Trust Fund Payments</b>	452,263,801	<b>Surplus/ (Deficit)</b>	2,534,572
<b>Administrative Expenses</b>	-14,898,620	<b>Funded Ratio</b>	100.3%
<b>Total Assets</b>	829,993,710		

(\$ Millions)

Fiscal Year	Education					EOY Assets
	Benefit Payments	Contract Holder Payments	Trust Fund Payments	Admin Expenses	Income	
10/01/10 - 03/31/11						\$ 373.8
04/01/11 - 09/30/11	-\$ 13.3	\$ 4.8	\$ 0.0	-\$ 0.6	\$ 4.3	369.0
10/01/11 - 09/30/12	-114.9	4.5	0.0	-1.2	7.2	264.6
10/01/12 - 09/30/13	-111.8	3.1	0.0	-1.2	5.0	159.7
10/01/13 - 09/30/14	-110.1	2.3	0.0	-1.2	3.1	53.8
10/01/14 - 09/30/15	-102.4	1.8	23.6	-1.2	1.1	-23.3
10/01/15 - 09/30/16	-89.6	1.4	34.0	-1.2	-0.1	-78.8
10/01/16 - 09/30/17	-76.7	0.9	42.6	-1.2	-0.9	-114.1
10/01/17 - 09/30/18	-69.5	0.6	61.8	-1.2	-1.4	-123.8
10/01/18 - 09/30/19	-62.6	0.2	55.5	-1.2	-1.5	-133.4
10/01/19 - 09/30/20	-56.8	0.0	88.7	-1.2	-1.2	-103.9
10/01/20 - 09/30/21	-43.1	0.0	31.9	-1.2	-1.2	-117.5
10/01/21 - 09/30/22	-31.0	0.0	32.2	-1.2	-1.3	-118.8
10/01/22 - 09/30/23	-19.7	0.0	33.5	-1.2	-1.0	-107.2
10/01/23 - 09/30/24	-8.9	0.0	33.7	-1.1	-0.8	-84.3
10/01/24 - 09/30/25	0.0	0.0	38.4	-1.0	-0.3	-47.2
10/01/25 - 09/30/26	0.0	0.0	39.2	0.0	-0.5	-8.5
10/01/26 - 09/30/27	0.0	0.0	32.5	0.0	0.1	24.1
10/01/27 - 09/30/28	0.0	0.0	0.0	0.0	0.5	24.6
10/01/28 - 09/30/29	0.0	0.0	0.0	0.0	0.5	25.1
10/01/29 - 09/30/30	0.0	0.0	0.0	0.0	0.5	25.6
10/01/30 - 09/30/31	0.0	0.0	0.0	0.0	0.5	26.1
10/01/31 - 09/30/32	0.0	0.0	0.0	0.0	0.6	26.7
<b>Total</b>	<b>-910.4</b>	<b>19.6</b>	<b>547.6</b>	<b>-\$ 17.1</b>		

## Run #3

<b>Current Assets</b>	373,817,382	<b>PV of Tuition payments</b>	877,613,180
<b>PV of Contractholder payments</b>	18,811,147		
<b>PV of Education Trust Fund Payments</b>	452,263,801	<b>Surplus/ (Deficit)</b>	-47,619,470
<b>Administrative Expenses</b>	-14,898,620	<b>Funded Ratio</b>	94.6%
<b>Total Assets</b>	829,993,710		

(\$ Millions)

Fiscal Year	Education				Admin Expenses	Income	EOY Assets
	Benefit Payments	Contract Holder Payments	Trust Fund Payments				
10/01/10 - 03/31/11							\$ 373.8
04/01/11 - 09/30/11	-\$ 13.4	\$ 4.8	\$ 0.0	-\$ 0.6	\$ 4.3		368.9
10/01/11 - 09/30/12	-117.3	4.5	0.0	-1.2	7.2		262.1
10/01/12 - 09/30/13	-115.2	3.1	0.0	-1.2	5.0		153.8
10/01/13 - 09/30/14	-114.5	2.3	0.0	-1.2	2.8		43.2
10/01/14 - 09/30/15	-107.6	1.8	23.6	-1.2	0.8		-39.4
10/01/15 - 09/30/16	-95.1	1.4	34.0	-1.2	-0.5		-100.8
10/01/16 - 09/30/17	-82.3	0.9	42.6	-1.2	-1.4		-142.2
10/01/17 - 09/30/18	-75.2	0.6	61.8	-1.2	-2.0		-158.2
10/01/18 - 09/30/19	-68.5	0.2	55.5	-1.2	-2.3		-174.5
10/01/19 - 09/30/20	-62.7	0.0	88.7	-1.2	-2.2		-151.9
10/01/20 - 09/30/21	-48.1	0.0	31.9	-1.2	-2.1		-171.4
10/01/21 - 09/30/22	-34.9	0.0	32.2	-1.2	-2.4		-177.7
10/01/22 - 09/30/23	-22.4	0.0	33.5	-1.2	-2.3		-170.1
10/01/23 - 09/30/24	-10.2	0.0	33.7	-1.1	-2.1		-149.8
10/01/24 - 09/30/25	0.0	0.0	38.4	-1.0	-1.6		-114.0
10/01/25 - 09/30/26	0.0	0.0	39.2	0.0	-1.9		-76.7
10/01/26 - 09/30/27	0.0	0.0	32.5	0.0	-1.2		-45.4
10/01/27 - 09/30/28	0.0	0.0	0.0	0.0	-0.9		-46.3
10/01/28 - 09/30/29	0.0	0.0	0.0	0.0	-0.9		-47.2
10/01/29 - 09/30/30	0.0	0.0	0.0	0.0	-1.0		-48.2
10/01/30 - 09/30/31	0.0	0.0	0.0	0.0	-0.9		-49.1
10/01/31 - 09/30/32	0.0	0.0	0.0	0.0	-1.0		-50.1
<b>Total</b>	<b>-967.4</b>	<b>19.6</b>	<b>547.6</b>	<b>-\$ 17.1</b>			

## Run #4

<b>Current Assets</b>	373,817,382	<b>PV of Tuition payments</b>	865,496,988
<b>PV of Contractholder payments</b>	18,811,147		
<b>PV of Education Trust Fund Payments</b>	452,263,801	<b>Surplus/ (Deficit)</b>	-35,503,277
<b>Administrative Expenses</b>	-14,898,620	<b>Funded Ratio</b>	95.9%
<b>Total Assets</b>	829,993,710		

(\$ Millions)

Fiscal Year	Benefit Payments	Contract Holder Payments	Education		Admin Expenses	Income	EOY Assets
			Trust Fund Payments				
10/01/10 - 03/31/11							\$ 373.8
04/01/11 - 09/30/11	-\$ 13.7	\$ 4.8	\$ 0.0		-\$ 0.6	\$ 4.2	368.5
10/01/11 - 09/30/12	-121.9	4.5	0.0		-1.2	7.1	257.0
10/01/12 - 09/30/13	-111.8	3.1	0.0		-1.2	5.0	152.1
10/01/13 - 09/30/14	-110.1	2.3	0.0		-1.2	2.9	46.0
10/01/14 - 09/30/15	-102.4	1.8	23.6		-1.2	1.0	-31.2
10/01/15 - 09/30/16	-89.6	1.4	34.0		-1.2	-0.3	-86.9
10/01/16 - 09/30/17	-76.7	0.9	42.6		-1.2	-1.1	-122.4
10/01/17 - 09/30/18	-69.5	0.6	61.8		-1.2	-1.6	-132.3
10/01/18 - 09/30/19	-62.6	0.2	55.5		-1.2	-1.6	-142.0
10/01/19 - 09/30/20	-56.8	0.0	88.7		-1.2	-1.5	-112.8
10/01/20 - 09/30/21	-43.1	0.0	31.9		-1.2	-1.3	-126.5
10/01/21 - 09/30/22	-31.0	0.0	32.2		-1.2	-1.4	-127.9
10/01/22 - 09/30/23	-19.7	0.0	33.5		-1.2	-1.3	-116.6
10/01/23 - 09/30/24	-8.9	0.0	33.7		-1.1	-0.9	-93.8
10/01/24 - 09/30/25	0.0	0.0	38.4		-1.0	-0.5	-56.9
10/01/25 - 09/30/26	0.0	0.0	39.2		0.0	-0.7	-18.4
10/01/26 - 09/30/27	0.0	0.0	32.5		0.0	-0.1	14.0
10/01/27 - 09/30/28	0.0	0.0	0.0		0.0	0.3	14.3
10/01/28 - 09/30/29	0.0	0.0	0.0		0.0	0.3	14.6
10/01/29 - 09/30/30	0.0	0.0	0.0		0.0	0.3	14.9
10/01/30 - 09/30/31	0.0	0.0	0.0		0.0	0.3	15.2
10/01/31 - 09/30/32	0.0	0.0	0.0		0.0	0.3	15.5
<b>Total</b>	<b>-917.8</b>	<b>19.6</b>	<b>547.6</b>		<b>-\$ 17.1</b>		

**Run #5**

<b>Current Assets</b>	373,817,382	<b>PV of Tuition payments</b>	827,459,138
<b>PV of Contractholder payments</b>	18,811,147		
<b>PV of Education Trust Fund Payments</b>	434,845,367	<b>Surplus/ (Deficit)</b>	-14,883,862
<b>Administrative Expenses</b>	-14,898,620	<b>Funded Ratio</b>	98.2%
<b>Total Assets</b>	812,575,276		

(\$ Millions)

Fiscal Year	Education						EOY Assets
	Benefit Payments	Contract Holder Payments	Trust Fund Payments	Additional Required Funding	Admin Expenses	Income	
10/01/10 - 03/31/11							\$ 373.8
04/01/11 - 09/30/11	-\$ 13.3	\$ 4.8	\$ 0.0	\$ 0.0	-\$ 0.6	\$ 4.3	369.0
10/01/11 - 09/30/12	-114.9	4.5	0.0	0.0	-1.2	7.2	264.6
10/01/12 - 09/30/13	-111.8	3.1	0.0	0.0	-1.2	5.0	159.7
10/01/13 - 09/30/14	-110.1	2.3	0.0	0.0	-1.2	3.1	53.8
10/01/14 - 09/30/15	-102.4	1.8	0.0	46.6	-1.2	1.4	0.0
10/01/15 - 09/30/16	-89.6	1.4	0.0	88.5	-1.2	0.9	0.0
10/01/16 - 09/30/17	-76.7	0.9	0.0	76.0	-1.2	1.0	0.0
10/01/17 - 09/30/18	-69.5	0.6	0.0	69.1	-1.2	1.0	0.0
10/01/18 - 09/30/19	-62.6	0.2	0.0	62.6	-1.2	1.0	0.0
10/01/19 - 09/30/20	-56.8	0.0	0.0	57.0	-1.2	1.0	0.0
10/01/20 - 09/30/21	-43.1	0.0	0.0	43.3	-1.2	1.0	0.0
10/01/21 - 09/30/22	-31.0	0.0	0.0	31.1	-1.2	1.1	0.0
10/01/22 - 09/30/23	-19.7	0.0	0.0	19.7	-1.2	1.2	0.0
10/01/23 - 09/30/24	-8.9	0.0	0.0	8.9	-1.1	1.1	0.0
10/01/24 - 09/30/25	0.0	0.0	0.0	0.0	-1.0	1.0	0.0
10/01/25 - 09/30/26	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/26 - 09/30/27	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/27 - 09/30/28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/28 - 09/30/29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/29 - 09/30/30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/30 - 09/30/31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/01/31 - 09/30/32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>-910.4</b>	<b>19.6</b>	<b>0.0</b>	<b>502.8</b>	<b>-\$ 17.1</b>		

# PACT Actuarial Status April 2011 – Run #5

Millions

