# Universidad del Sagrado Corazón

Universidad del Sagrado Corazón Pension Plan

Actuarial Valuation Report as of July 1, 2018 for the plan year beginning on that date.

Determination of Net Periodic Pension Cost for the Fiscal Year Ending June 30, 2019 in Accordance with Accounting Standards Codification 715-30 of the Financial Accounting Standards Board

Issued January 4, 2019



VIG Tower, Suite 804, 1225 Ponce de León Avenue San Juan, PR 00907 Voice: 787.340.5593 | Fax: 315.292.6468

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The information contained in this report was prepared for the use of Universidad del Sagrado Corazón and its auditors in connection with our actuarial valuation. It is not intended or necessarily suitable for other purposes. To avoid misrepresentation, it is intended to be used in its entirety.

This report has been prepared by BPAS Trust Company of Puerto Rico for Universidad del Sagrado Corazón to:

- Present the Net Periodic Pension Cost (NPPC) of the of Universidad del Sagrado Corazón Pension Plan for the fiscal year ending June 30, 2019 in accordance with Accounting Standards Codification 715-30 of the Financial Accounting Standards Board.
- Present the results of the July 1, 2018 actuarial valuation of the Universidad del Sagrado Corazón Pension Plan;
- Provide management information on the current status of funding of plan benefits and the funding requirements for the plan year ending June 30, 2019;
- Provide accounting information for the Plan's financial statement and information necessary to meet government filing requirements of the Plan.

## **Summary of Financial Highlights**

The following is a summary of the main financial results from the current and prior year valuations. Any changes from the prior year that impact the results are discussed in the Summary of Changes section of the Executive Summary.

	Projected to			Disclosed at		
	Ju	une 30, 2019	July 1, 2018	June 30, 2018	July 1, 2017	
<ol> <li>Projected Benefit Obligation</li> <li>Fair Value of Plan Assets</li> </ol>	\$	(39,960,471) 32,282,340	(40,966,666) 31,709,881	(40,930,721) 31,709,881	(41,446,035 31,973,452	
3. Funded Status	\$	(7,678,131)	(9,256,785)	(9,220,840)	(9,472,583	
4. Unrecognized net transition obligation/(asset)		0	0	0	C	
5. Unrecognized prior service cost 6. Unrecognized net (gain)/loss		0 11,218,566	0 12,773,566	0 12,737,621	( 13,483,147	
7. Total items not yet recognized as NPPC	\$	11,218,566	12,773,566	12,737,621	13,483,147	
8. Amount Recognized	\$	(7,678,131)	(9,220,840)	(9,220,840)	(9,317,122	
9. Net Periodic Pension Cost/(Income)		675,422	675,422	738,019	738,01	

## Summary of Benefit Obligations for Expense

Please note that the Net Periodic Pension Cost decreased from previous levels due mainly to a gain on plan experience.

## **Summary of Financial Highlights**

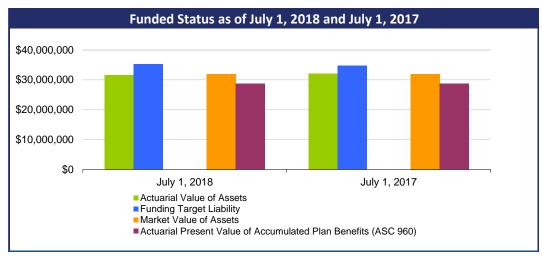
## **Funded Status**

The funded status of a plan is a comparison of the current value of plan assets and the present value of all the benefits earned in the Plan that are either currently being paid or are expected to be paid in the future. There are different measurements of funded status depending on the purpose of the valuation and the corresponding assumptions.

For purposes of minimum funding requirements under the Pension Protection Act of 2006 (PPA), the basis of measurement for plan assets is the actuarial value of assets, including discounted receivable contributions, and the present value of benefits is referred to as the "funding target liability" with the discount rate and mortality table assumptions mandated by the IRS.

For purposes of plan accounting requirements under Accounting Standards Codification 960 (ASC 960), the basis of measurement for plan assets is the market value of assets, including undiscounted receivable contributions, and the assumptions used for the actuarial present value of accumulated plan benefits are typically based on long term assumptions.

Please refer to Section XII for the development of the market value of assets and actuarial value of assets and Section XIV for a detail of assumptions and methods used for the valuation.



## **Target Normal Cost**

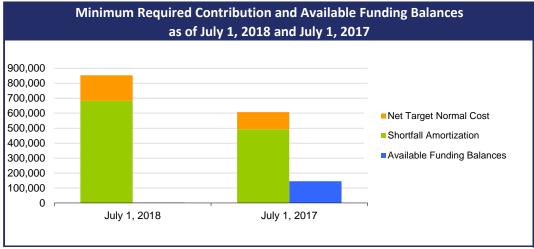
The target normal cost represents the value of benefits expected to be earned in a year by the active employees who continue to earn benefit service in the Plan. The target normal cost also includes non-investment related administrative expenses paid from the Plan.

Target Normal Cost	July 1, 2018		July 1, 2017
1. Normal Cost	\$	0	\$ 0
2. Administrative Expenses		170,161	114,394
3. Target Normal Cost: (1+2)		170,161	114,394

## **Summary of Financial Highlights**

## **Contribution Requirements**

Contributions to the Plan are required to be made based on the funded status and target normal cost. To the extent the funded status is less than 100%, an amortization of the shortfall may be required in addition to the target normal cost. To the extent the funded status is greater than 100%, the surplus may be available to offset the target normal cost. Please refer to Section VIII for the development of the minimum required contribution.



<u>Note</u>: The minimum required contribution is equal to the sum of the net target normal cost and the shortfall amortization base. Further, the net target normal cost reflects a reduction for the Plan's overfunding, if any.

The minimum required contribution illustrated above is developed as of the beginning of the plan year and does not take into account any discounting of contributions for the actual dates paid. The plan sponsor may elect to use available funding balances to offset the minimum required contribution for the current plan year. If so, the plan sponsor will need to complete an election form stating the exact amount of funding balance that will be used to offset the minimum required contribution.

In the table below, we present a summary of the minimum cash contribution required (net of funding balances) by ERISA and actual employer contribution made for the plan year:

Plan Year	2018	2017
Minimum Cash Contribution	\$851,001	\$461,282
Actual Employer Contribution	N/A	\$488,110

The Minimum Required Contribution increased due to a decrease in the effective interest rate from 5.80% to 5.58%, a change to the prescribed mortality tables under PPA for 2018 and a new shortfall amortization base being setup for 2018.

## **Summary of Financial Highlights**

## **Contribution Requirements (continued)**

Contributions to the Plan must be made on a quarterly basis during the plan year if the Plan's funded status for the prior year is less than 100%. The funded status is determined using assets less the funding balance. As the Plan was less than 100% funded as of July 1, 2017 and July 1, 2018, there are quarterly contributions required for the 2018 - 2019 and 2019 - 2020 plan years.

The quarterly contributions due for 2018 - 2019 are 25% of the lesser of (a) 100% of the 2017 - 2018 minimum required contribution or (b) 90% of the 2018 - 2019 minimum required contribution, before any reductions are made due to available funding balances. Since the result in (a) is less than (b), the required quarterly contributions for the 2018 - 2019 plan year are \$151,734.

The following table outlines the final quarterly contribution schedule for the 2018 - 2019 plan year and the preliminary quarterly contribution schedule for the 2019 - 2020 plan year.

Due Date	Plan Year	Quarterly Contributions With Application of Funding Balances*
October 15, 2018	2018 - 2019	\$151,734
January 15, 2019	2018 - 2019	\$151,734
April 15, 2019	2018 - 2019	\$151,734
July 15, 2019	2018 - 2019	\$151,734
March 13,2020**	2018 - 2019	\$291,389
October 15, 2019	2019 - 2020	\$213,266
January 15, 2020	2019 - 2020	\$213,266
April 15, 2020	2019 - 2020	\$213,266
July 15, 2020	2019 - 2020	\$213,266

\* Does not reflect the penalty interest for late contributions.

\*\*The final contribution for the 2018 - 2019 plan year will be due by March 13, 2020. We will consult with the plan sponsor during the 2019 - 2020 plan year to determine the amount necessary to satisfy minimum funding requirements for 2018 - 2019 or to achieve other desired objectives.

## **Summary of Changes**

# Funding Target Liability and Actuarial Present Value of Accumulated Plan Benefits (ASC 960)

## Plan Provisions

The plan provisions are the same as those used in the July 1, 2017 valuation.

## **Actuarial Assumptions**

## Interest Rate Assumptions

The interest rates used to determine the Funding Target Liability for purposes of determining the Minimum Required Contribution were changed as of July 1, 2018 to the segment rates for July 2018 (3.92%, 5.52%, 6.29%). These rates represent the funding segment rates for plan years beginning in 2018 and reflect the segment rate stabilization provisions of IRC Section 430(h)(2)(C)(iv)(II). The change in the interest rates resulted in an increase in liability. Absent the segment rate stabilization provisions, the applicable interest rates would have been 2.14%, 3.73%, 4.44%.

## **Demographic Assumptions**

The mortality tables used to determine the Funding Target Liability were updated as of July 2018 to the RP-2000 Mortality Table for annuitants and non-annuitants with projected mortality improvements using Scale AA; specifically as outlined in IRC Regulation 1.430(h)(3)-1 after electing to delay implementation of the new mortality methodology for the 2018 valuation. The static mortality tables are projected from the base table for the year 2000 through 2018 with further projection to reflect the approximate expected duration of liabilities, namely 7 years for annuitants and 15 years for non-annuitants. The change in mortality tables resulted in an increase in liabilities.

## Actuarial Methods

The actuarial cost method and asset valuation method are the same as those used in the July 1, 2017 valuation.

## Actuarial Present Value of Accumulated Plan Benefits (ASC 715)

## **Plan Provisions**

The plan provisions are the same as those used in our Year-End Disclosure report for the fiscal year ending June 30, 2018.

## **Actuarial Assumptions**

The actuarial assumptions are the same as those used in our Year-End Disclosure report for the fiscal year ending June 30, 2018.

## Actuarial Methods

The actuarial cost method and asset valuation method are the same as those used in our Year-End Disclosure report for the fiscal year ending June 30, 2018.

This report has been prepared for the purposes outlined herein and may not be relied upon for any other purpose. An AFTAP certification for your Plan will be issued under separate cover.

The funding and expense valuations have been conducted in accordance with generally accepted actuarial principles and practices. In accordance with ERISA the amounts disclosed in this report as part of the funding valuation have been certified by the Enrolled Actuary or Actuaries who have signed below. The actuary or actuaries involved in this engagement are members of the American Academy of Actuaries and other professional actuarial organizations and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" to render the actuarial opinion outlined herein.

Our calculations were based on financial data furnished by the trustee, and on the employee data furnished by Universidad del Sagrado Corazón as of July 1, 2018. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness, but have not audited it. The accuracy of the results is dependent upon the accuracy and completeness of the underlying information which is the responsibility of those who supply the data. Our calculations were also based on the provisions of the Plan in effect on July 1, 2018 which are summarized in Section XV.

Section XIV of this report provides a summary of the assumptions and methods used in our valuation. These assumptions represent anticipated future experience under the Plan and were selected based on the University's expectation with regard to each assumption, with the exception of the discount rate for calculations under ASC 715-30, which was selected as discussed in our most recent Year-end Disclosure report. We believe the assumptions are reasonable for the purposes for which they are being used.

The valuations were based upon generally accepted actuarial methods, and we performed such tests as we considered necessary to assure the accuracy of the results. We certify that the amounts presented in the accompanying report have been appropriately determined according to the actuarial assumptions and methods stated herein, and fully and fairly disclose the actuarial position of the Plan.

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 and demographic assumptions; changes in demographic and economic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, we did not perform an analysis of the potential range of such future measurements.

The information contained in this report was prepared for the use of Universidad del Sagrado Corazón and its auditors in connection with our actuarial valuations. It is not intended or necessarily suitable for other purposes. To avoid misrepresentation, it is intended to be used in its entirety. Please note that the information required for June 30, 2019 ASC 715-30 financial statements is incomplete without the accompanying supplement to this report to be issued at the end of the fiscal year.

**SECTION II** 

Respectfully submitted,

**BPAS TRUST COMPANY OF PUERTO RICO** 

Héctor D Gaitán, FCA, ASA, EA Member of the American Academy of Actuaries (787) 340-5593 hgaitan@bpas.com

Elizabeth A. Sywj ASA, EA Member of the American Academy of Actuaries (315) 703-8906 esywyj@bpas.com

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## **SECTION III**

The following shows the development of the net periodic pension cost/(income) for the fiscal year ending June 30, 2019.

Assumptions	
Discount Rate	4.00%
Salary Increase	N/A
Expected Long-Term Rate of Return on Plan Assets	8.00%

Ne	t Periodic Pension Cost/(Income) for Fiscal Year 2019		
$\succ$	Service Cost	\$	0
≻	Interest Cost on Projected Benefit Obligation (PBO):		
	(a) Total PBO		40,966,666
	(b) Interest Cost = 4.00% X (a) less interest of \$51,361 on expected benefit paymen	ts	1,587,306
$\triangleright$	Expected Return on Plan Assets:*		(2,466,884)
$\triangleright$	Amortization of:		
	Transition Obligation	\$	0
	Prior Service Cost / (Credit)		0
	Net (Gain) / Loss		1,555,000
	Net Amortizations	\$	1,555,000
Ne	t Periodic Pension Cost/(Income)	\$	675,422

* Development of the Expected Return on Plan Assets	
Market value of assets as of June 30, 2018:	\$ 31,709,881
(a) Interest on market value of assets	2,536,790
(b) Interest on expected contributions	31,838
(c) Interest on expected benefit payments	101,744
Total Expected Return (a) + (b) - (c)	\$ 2,466,884

### **Estimated Future Benefit Payments**

Fiscal Year Ending	Benefit Payments			
2019	\$ 2,593,501			
2020	2,662,510			
2021	2,741,091			
2022	2,765,586			
2023	2,834,325			
2024 - 2028	13,851,172			

The following summarizes the components included in the net amortization and deferral portion of the Net Periodic Pension Cost:

Obligation/(Asset)			Initial Amortization			Unamortized Portion			
Date Determined	Туре	Amount	Period		Payment		07/01/2018		06/30/2019 **
07/01/2018	Cumulative (Gain)/Loss	\$ 12,773,566	5.580 Years	\$	1,555,000 *	\$	12,773,566	\$	11,218,566
	Total			\$	1,555,000	\$	12,773,566	\$	11,218,566

- \* The amount of (gain)/loss to be amortized is the amount in excess of 10 percent of the greater of the projected benefit obligation or the market value of assets (see Section V).
- \*\* Excludes any (gain)/loss which may occur during the period July 1, 2018 through June 30, 2019.

## DEVELOPMENT OF AMORTIZATION OF UNAMORTIZED NET (GAIN)/LOSS

Amo	rtization of (Gain) / Loss	
1.	Projected Benefit Obligation at July 1, 2018	\$ 40,966,666
2.	Plan Assets at July 1, 2018	31,709,881
3.	Unamortized Net (Gain)/Loss at July 1, 2018	12,773,566
4.	Ten Percent of Greater of (1) or (2)	4,096,667
5.	Unamortized (Gain)/Loss Subject to Amortization: (3) - (4), not less than zero	\$ 8,676,899
6.	Average Future Service of Active Plan Participants	5 500
	Expected to Receive Benefits	5.580
7.	Amortization of Unamortized Net (Gain)/Loss: (5)/(6)	\$ 1,555,000

The Funding Target Liability is defined as the present value of the Plan's accrued benefits determined using IRS mandated assumptions. The relationship between the Plan's Funding Target Liability and Actuarial Value of Assets, or funded status, impacts the Plan's Minimum Required and Maximum Recommended Contributions.

Development of Funding Target Liability	
1. Retired Participants	\$ 18,322,387
2. Terminated Vested Participants	3,991,694
3. Active Participants	
a. Non-vested Benefits	97,750
b. Vested Benefits	12,792,806
c. Total (3a+3b)	12,890,556
Funding Target Liability (1+2+3c)	\$ 35,204,637

The Target Normal Cost is defined as the present value of benefits expected to accrue during the plan year, determined using the same assumptions used for the Funding Target Liability. Additionally, the Target Normal Cost includes non-investment related administrative expenses expected to be paid out of the trust during the plan year.

Development of Target Normal Cost	
1. Benefits Accruing During Plan Year	\$ 0
2. Expense Load	170,161
Target Normal Cost (1+2)	\$ 170,161

The chart below develops the Funding Target Liability and Target Normal Cost without reflecting the segment rate stabilization provisions of IRC Section 430(h)(2)(C)(iv)(II).

Development of Funding Target Liability Without Segment Rate Stabilization							
1. Retired Participants	\$	21,090,475					
2. Terminated Vested Participants		4,818,006					
3. Active Participants		15,716,810					
Funding Target Liability (1+2+3)	\$	41,625,291					

Development of Target Normal Cost Without Segment Rate Stabilization					
1. Benefits Accruing During Plan Year	\$	0			
2. Expense Load		170,161			
Target Normal Cost (1+2)	\$	170,161			

A single-employer defined benefit pension plan that is subject to ERISA's minimum funding standards is at-risk for a plan year if all three of the following conditions are present:

- 1. Ineligible for Small Plan Exception The plan has more than 500 participants on one or more days of the preceding plan year. For this rule, all defined benefit plans (not including multiemployer plans) of the employer's controlled group are considered a single plan, but only participants of the employer are counted.
- 2. Not At-Risk Assumptions Test The plan's funded status for the preceding plan year, determined on the basis of not at-risk actuarial assumptions, 70% for 2008, 75% for 2009 and 80% thereafter.
- 3. At-Risk Assumptions Test The plan's funded status for the preceding plan year, determined on the basis of at-risk actuarial assumptions (without loads), is less than 70% (this amount is not phased in).

Plan Year	Small Plan Exemption	Not At-Risk Assumption Test	At-Risk Assumption Test	Pass/Fail At-Risk Status
				Pass, Not At-Risk for
2018	No	89.57%	N/A	the 2019 Plan Year
				Pass, Not At-Risk for
2017	No	91.77%	N/A	the 2018 Plan Year
				Pass, Not At-Risk for
2016	No	96.37%	N/A	the 2017 Plan Year
				Pass, Not At-Risk for
2015	No	100.81%	N/A	the 2016 Plan Year
				Pass, Not At-Risk for
2014	No	99.38%	N/A	the 2015 Plan Year
				Pass, Not At-Risk for
2013	No	93.26%	N/A	the 2014 Plan Year

Since the Plan's Funded status was at least 80% as of July 1, 2017, the Plan is not At-Risk for the 2018 Plan Year.

Furthermore, since the Plan's funded status is at least 80% as of July 1, 2018, the Plan will not be At-Risk for the 2019 Plan Year.

## **SECTION VIII**

The Minimum Required Contribution under IRC Section 430 for the plan year ending June 30, 2019 must be contributed no later than March 13, 2020. The Minimum Required Contribution is increased to reflect interest at the effective interest rate if the contribution is made after July 1, 2018. The Minimum Required Contribution shown below has not been interest adjusted.

Development of Minimum Required Contribution							
1. Net Target Normal Cost	\$	170,161					
2. Shortfall Amortization Charge		682,904					
3. Funding Waiver Amortization		0					
Minimum Required Contribution (1+2+3)	\$	853,065					
4. Offset for Funding Balances (FBs)		2,064					
Minimum Required Contribution (Net of FBs)	\$	851,001					

Development of Net Target Normal Cost							
1. Target Normal Cost	\$	170,161					
2. Actuarial Value of Assets		31,535,313					
3. Funding Balances*		2,064					
4. Funding Target Liability		35,204,637					
5. Funding Surplus [(2-3)-4], not less than zero		0					
Net Target Normal Cost (1-5), not less than zero \$ 170,161							

Development of 2018 Shortfall Amortization Installment							
1. Funding Target Liability	\$	35,204,637					
2. Actuarial Value of Assets		31,535,313					
3. Funding Balances*		2,064					
4. Funding Shortfall [1-(2-3)], not less than zero		3,671,388					
5. Remaining Balances of Prior Amortizations		2,505,304					
6. 2018 Shortfall Amortization Base (4-5)		1,166,084					
7. Amortization Factor		6.1256					
2018 Shortfall Amortization Installment (6/7)	\$	190,362					

\* The Funding Balances are the sum of the Carryover Balance and Prefunding Balance as of July 1, 2018.

Amortization Schedule as of July 1, 2018								
Year				Remaining	emaining Remaining Annual			
Established	Initial Period	Ini	tial Amount	Period		Amount		Payment
2018	7 Years	\$	1,166,084	7 Years	\$	1,166,084	\$	190,362
2017	7 Years	\$	1,764,650	6 Years	\$	1,565,144	\$	289,777
2016	7 Years	\$	1,227,219	5 Years	\$	940,160	\$	202,765
	Тс	otal			\$	3,671,388	\$	682,904

## **FUNDING BALANCES**

## **SECTION IX**

The Pension Protection Act of 2006 provides that Universidad del Sagrado Corazón may elect to use a portion of the Plan's Funding Balances to offset the 2018 Minimum Required Contribution, provided the ratio as of July 1, 2017 of the Actuarial Value of Assets (reduced by any Prefunding Balance, but not by any Carryover Balance) to the Funding Target Liability (using not at-risk assumptions) was at least 80%.

The following chart develops the Funding Balances available as of July 1, 2018 to reduce the 2018 Minimum Required Contribution.

	Funding Balances		
	Carryover	Prefunding	
Development of Funding Balances as of July 1, 2018	Balance	Balance	
1. Balance at July 1, 2017 After Applicable Adjustments	\$ 0	\$ 145,654	
2. Portion Used to Offset the 2017 Plan Year Funding Requirement	0	145,654	
3. Amount Remaining (1-2)	0	0	
4. Interest on (3) using 2017-2018 Actual Return of 5.80%	0	0	
5. 2017 Plan Year Excess Contributions to be Added			
to Prefunding Balance			
a. Excess Contributions	N/A	1,951	
b. Interest on Applicable Part of (a) Using 2017 Plan Year's			
Effective Interest Rate of 5.80%*	N/A	0	
c. Interest on Applicable Part of (a) Using 2017 Plan Year's			
Actual Return of 5.80%*	N/A	113	
c. Total Available at July 1, 2018 to Add			
to Prefunding Balance (5a+5b+5c)	N/A	2,064	
d. Portion of (c) to be Added to Prefunding Balance	N/A	2,064	
6. Reductions in Balances Due to Elections or Deemed Elections	0	0	
7. Balance at July 1, 2018 (3+4+5d-6)	0	2,064	
8. 2017 Plan Year Funded Percentage	91.77%	91.77%	
9. Amount Available to Apply to 2018 Plan Year Minimum Required			
Contribution (equals zero if (8) is less than 80%)	\$0	\$ 2,064	

\* If a contribution (or a portion of a contribution) is an excess contribution solely because an election was made to offset the 2017 minimum required contribution by the carryover balance or the prefunding balance, then the interest on that contribution (or portion of a contribution) uses the actual rate of return on assets instead of the effective interest rate.

## **SECTION X**

## MAXIMUM RECOMMENDED CONTRIBUTION

As a tax-exempt organization, the Plan sponsor is not subject to Puerto Rico Internal Revenue Code Section 1081.01(a)(15), which provides rules concerning the deduction limit for contributions to defined benefit pension plans. Therefore, the maximum recommended contribution has not been calculated as it does not apply.

## **SECTION XI**

The following is an exhibit of the actuarial present value of accumulated plan benefits, the market value of assets, and the funding ratio as of the prior and current valuations for comparative purposes:

Comparative Results Under ASC 960	July 1, 2018		60 Jul		July 1, 2017
1. Actuarial Present Value of Accumulated					
Plan Benefits on Account of:					
a. Vested Accrued Benefits:					
i. Retirees and Beneficiaries	\$	15,319,838	\$ 14,246,155		
ii. Vested Terminated Members		3,210,613	2,902,072		
iii. Vested Active Members		10,149,008	11,436,886		
iv. Total Vested Benefits (i+ii+iii)	\$	28,679,459	\$ 28,585,113		
b. Non-vested Accrued Benefits		66,202	118,638		
c. Total Accrued Benefits (a.iv+b)	\$	28,745,661	\$ 28,703,751		
2. Market Value of Assets		31,953,755	31,973,452		
3. Funding Ratio (2 divided by 1.c)		111.16%	111.39%		

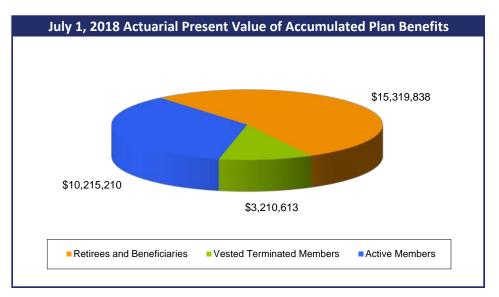
The changes in the actuarial present value of accumulated plan benefits during the preceding 12 month period are presented below:

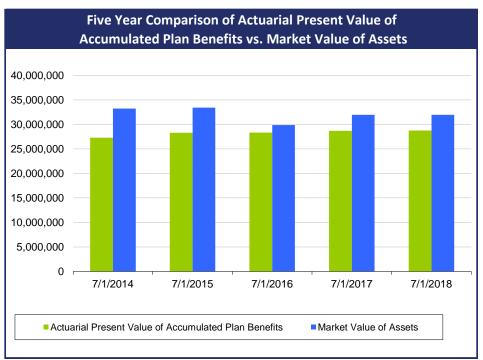
Reconciliation of ASC 960 Resul	ts	
1. Actuarial present value of accumulated		
plan benefits as of July 1, 2017	\$	28,703,751
2. Increases or decreases during the preceding		
12 month period attributable to:		
a. Increase for interest due to the decrease		
in the discount period at 8.00%	\$	2,211,078
b. Benefits paid		2,130,544
c. Changes in plan design		0
d. Changes in actuarial assumptions		0
e. Benefits accumulated and actuarial		
gains and losses		(38,624)
f. Net increase or decrease (a-b+c+d+e)	\$	41,910
3. Actuarial present value of accumulated		
plan benefits as of July 1, 2018 (1+2.f)	\$	28,745,661

Accumulated employee contributions plus interest at July 1, 2018 amounted to \$3,577,741.

## **SECTION XI**

As of July 1, 2018 the largest portion of the Plan's actuarial present value of accumulated plan benefits is attributable to retirees and beneficiaries (53%). The remaining portion is attributable to active members (36%) and vested terminated members (11%).





The following develops the changes in the Market Value of Assets during 2017-2018 and calculates the approximate rate of return on the Market Value of Assets during 2017-2018. The rate of return developed below is used to adjust the Funding Balances from July 1, 2017 to July 1, 2018.

	Changes in Market Value of Assets and Development of Approximate F	ate of	Return
1.	Market Value of Assets in the Trust as of July 1, 2017	\$	31,973,452
2.	Contributions Made During Plan Year		244,236
3.	Benefit Payments (Monthly Annuity Payments)		1,806,701
4.	Benefit Payments (Lump Sum and Employee Contribution Payments)		323,843
5.	Expenses (Not Including Investment Advisory Fees)**		170,161
6.	Investment Increase/(Decrease)		1,792,898
7.	Market Value of Assets in the Trust as of June 30, 2018*		31,709,881
8.	Dollar-Weighted Rate of Return:		5.80%

The following develops the Market Value of Assets as of July 1, 2018 used in disclosure items under ASC 960 (Accounting and Reporting by Defined Benefit Pension Plans). Market Value of Assets, for purposes of ASC 960, include receivable contributions and payables that are not discounted with interest to July 1, 2018.

Market Value of Assets at July 1, 2018 for Purposes of ASC 960					
1. Market Value of Assets in the Trust	as of July 1, 2018 \$	31,709,881			
2. Receivable Contributions		243,874			
3. Payables		0			
4. Market Value of Assets as of July 1,	2018				
Including Receivables and Payables	: (1+2-3) \$	31,953,755			

\*As provided by the Plan Sponsor, reflects \$531,884, \$300,407 and \$11,715,339 in assets for the 2015/2016, 2016/2017 and 2017/2018 fiscal years, respectively, in addition to the Fair Value of assets provided by the Trustee.

\*\* As provided by the Plan Sponsor.

## **SECTION XII**

The following develops the Actuarial Value of Assets as of July 1, 2018 utilized in calculations to determine funding requirements. The Actuarial Value of Assets is equal to a 24-month smoothed asset value using the method utilized in IRS Notice 2009-22.

Actuarial Value of A	Assets at July 1. 2	018					
1. Market Value of Assets in the Trust as of July	-						
Not Including Receivables or Payables							
2. Discounted Receivable Contributions	\$ 31,709,881 241,033						
3. Discounted Payables			0				
4. Market Value of Assets as of July 1, 2018			·				
Including Discounted Receivables and Payab	les: (1+2-3)		31,950,914				
5. Adjustment for Three-Year Phase-In of Gains			0 _)0 0 0,0 _ 1				
	Plan	Year					
	2016-2017	2017-2018					
a. Assumed Rate of Return on Assets	8.00%	8.00%					
b. Limitation on Rate of Return on Assets	6.65%	6.48%					
c. Actual Investment Earnings	3,593,463	1,792,898					
d. Expected Investment Earnings	1,924,666	2,003,895					
e. Asset Gain/(Loss): (5c) - (5d)	1,668,797	(210,997)					
f. Percent Deferred	33%	67%					
g. Deferred Asset Gain/(Loss): (5e) x (5f)	556,266	(140,665)					
h. Total Deferred Asset Gain/(Loss)	415,	601					
6. Actuarial Value of Assets Before Application	of						
Corridor Limitations: (4) - (5h)	31,535,313						
7. Corridor Limitations							
a. 90% of Market Value of Assets: (90% of 4	28,755,823						
b. 110% of Market Value of Assets: (110% o	35,146,005						
8. Actuarial Value of Assets as of July 1, 2018							
[(6) Not Less Than (7a) or Greater Than (7b)	]		\$ 31,535,313				

Development of Discounted Contributions							
				Discounted		Discounted	
	Amount			Value at		Value at	
Date Deposited		Deposited		July 1, 2017*		July 1, 2018*	
January 31, 2018	\$	159,050	\$	153,904		N/A	
February 6, 2018	\$	3,774	\$	3,652		N/A	
April 13, 2018	\$	81,412	\$	77,858		N/A	
July 13, 2018	\$	81,412	\$	76,768	\$	81,221	
October 11, 2018	\$	162,462	\$	151,051	\$	159,812	
Total	\$	488,110	\$	463,233	\$	241,033	

\* Discounted at the 2017 Plan Year Effective Interest Rate of 5.80%

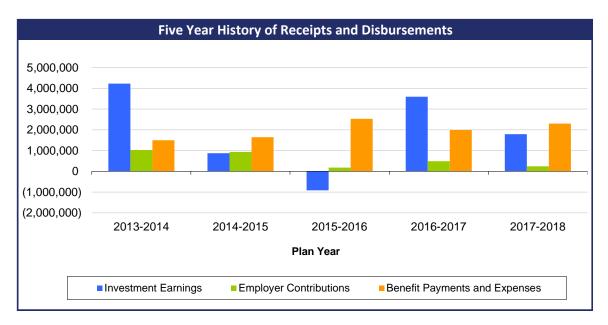
## **SECTION XII**

### Five Year History of Market Value Rate of Return



### Notes:

- (1) The rates of return shown above were determined based on the Plan's market value of assets using a dollar-weighted rate of return.
- (2) The rates of return shown above were not calculated in accordance with Securities and Exchange Commission guidelines.



### Notes:

(1) The above information reflects investment earning determined based on the Plan's market value of assets, and actual employer cash contribution, benefit payments and expenses made during the year.



#### **Reconciliation of Participant Data** Α.

	F	Reconciliation of Participant Data					
		Retirees and	Vested				
	Actives	Beneficiaries	Terminations	Total			
Total as of July 1, 2017	180	229	183	592			
New Entrants	0	0	0	0			
To Inactive	0	0	0	0			
Reactivation	0	0	0	0			
Nonvested Terminations	0	0	0	0			
Vested Terminations	(3)	0	3	0			
Retirements	(12)	25	(13)	0			
Rehires	1	0	(1)	0			
QDRO	0	0	0	0			
Deaths	0	(13)	0	(13)			
New Beneficiaries	0	2	(1)	1			
Lump sum paid out	0	0	(3)	(3)			
Certain period expired	0	0	0	0			
Data adjustments	0	0	1	1			
Total as of July 1, 2018	166	243	169	578			

#### Age and Service Distribution of Active Members Β.

	Completed Years of Service on July 1, 2018										
Attained Age	Under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	6	2	0	0	0	0	0	8
40-44	0	0	0	3	4	2	0	0	0	0	9
45-49	0	0	0	2	7	5	1	0	0	0	15
50-54	0	0	0	3	3	4	5	7	0	0	22
55-59	0	0	0	3	2	4	9	19	7	0	44
60-64	0	0	0	5	5	4	7	15	6	4	46
65-70	0	0	0	1	2	0	4	5	1	5	18
70 & up	0	0	0	0	0	0	1	2	1	0	4
Total	0	0	0	23	25	19	27	48	15	9	166

Active Member Statistics	July 1, 2018	July 1, 2017
Number of members	166	180
Average age	57.24	56.86
Average years of service	26.74	25.96

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## **SECTION XIII**

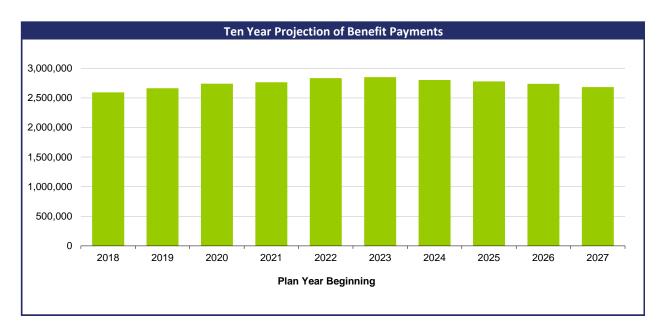
## C. Age Distribution of Non-Active Members

Age	Retirees and Beneficiaries
Under 55	1
55-59	22
60-64	44
65-69	66
70-74	50
75-79	13
80-84	17
85 and over	30
Total	243
Average Age	70.92

Aco	Vested
Age	Terminations
Under 25	0
25-29	0
30-34	0
35-39	1
40-44	6
45-49	10
50-54	35
55-59	42
60-64	50
65-69	17
70 and over	8
Total	169
Average Age	58.61

## D. <u>Benefit Payment Projection</u>

The following is a projection of benefit payments expected to be paid from the trust during the next ten plan years. The projection is based on the ASC 960 valuation assumptions and assumes no new entrants to the Plan over the ten year period.



## **SECTION XIV**

The valuation of a defined benefit pension plan involves estimates and assumptions about the probability of events occurring far into the future. Examples include assumptions about future employment, mortality, and retirement. Below is a description of the actuarial assumptions and methods used in the valuation.

## Funding Target Liability

Valuation Date: July 1, 2018

**Demographic Information:** The demographic information was provided as of July 1, 2018 by Universidad del Sagrado Corazón. Although we did not audit the data, we did review the data for reasonableness.

Actuarial Cost Method: As required by PPA, the Traditional Unit Credit Cost Method was used.

**Asset Valuation Method:** The actuarial value of assets is determined by averaging the fair market value of assets as of the valuation date and the adjusted fair market values as of the preceding two valuation dates. This methodology is consistent with that provided in IRS Notice 2009-22.

### Anticipated Rate of Return on Plan Assets: 8.00%

**Interest Rates used to determine Minimum Required Contribution:** The July 2018 funding segment rates were utilized as prescribed by IRC Section 430(h) and elected by Universidad del Sagrado Corazón. Below, please find the segment rates after reflection of the segment rate stabilization provisions of IRC Section 430(h)(2)(C)(iv).

Segment	Interest Rate
Segment 1	3.92%
Segment 2	5.52%
Segment 3	6.29%

Effective Interest Rate				
5.58%				

Segment 1 is applied to benefit payments expected to be made in the first 5 years, segment 2 is applied to benefit payments expected to be made in the next 15 years and segment 3 is applied thereafter.

**Interest Rates Absent the Segment Rate Stabilization Provisions of IRC Section 430(h)(2)(C)(iv)(II):** The July 2018 funding segment rates were utilized as prescribed by IRC Section 430(h) and elected by Universidad del Sagrado Corazón

Segment	Interest Rate
Segment 1	2.14%
Segment 2	3.73%
Segment 3	4.44%
oconicit o	

Effective Interest Rate				
3.84%				

Segment 1 is applied to benefit payments expected to be made in the first 5 years, segment 2 is applied to benefit payments expected to be made in the next 15 years and segment 3 is applied thereafter.

### Mortality:

The RP-2000 Mortality Table for annuitants and non-annuitants with projected mortality improvements using Scale AA; specifically as outlined in IRC Regulation 1.430(h)(3)-1 after electing to delay implementation of new mortality methodology for the 2018 valuation. The static mortality tables are projected from the base table for the year 2000 through 2018 with further projection to reflect the approximate expected duration of liabilities, namely 7 years for annuitants and 15 years for non-annuitants.

**Retirement Incidence:** Rates of retirement are based on the Client's expectations. For regular early retirement, values of the assumed annual rates of retirement are set forth in the following table:

Age	Percentage
55-59	1.00%
60-61	2.00%
62	5.00%
63	2.00%
64	2.00%
65	100.00%

For unreduced early retirement, values of the assumed annual rates of retirement are set forth in the following table:

Age	Percentage
55-59	5.00%
60-61	5.00%
62	25.00%
63	20.00%
64	20.00%
65	100.00%

Current and future vested terminated participants are assumed to retire at age 65.

**Turnover:** Rates of turnover are based on the Client's expectations. Representative values of the assumed annual rates of withdrawal among members in active service are set forth in the following table:

Age	Percentage
20	8.00%
25	7.80%
30	7.32%
35	6.41%
40	5.35%
45	4.33%
50	3.21%
55	0.00%

**Disability:** Disability rates were based on a 1952 Study by the American Society of Pension Actuaries; Disability Table Benefit 5, Period 4. Representative values of the assumed annual rates of retirement are set forth in the following table:

Age	Percentage
25	0.10%
30	0.11%
35	0.13%
40	0.16%
45	0.22%
50	0.35%
55	0.71%
60	1.25%

**Administrative Expenses:** Plan expenses based on Plan related expenses paid by plan assets as provided by the Plan Sponsor. These expenses are used in the determination of the Target Normal Cost.

**Spouse Assumptions:** 80% of participants not currently collecting benefits are assumed to be married, with male spouses assumed to be three years older and female spouses assumed to be three years younger than the participant. This assumption was based on national averages.

**Form of Benefit:** Unless specified by the participant or by law, all benefits to single participants will be paid in the form of a life annuity. Benefits are payable to married participants in the form of a joint and 50% survivor annuity actuarially equivalent to the life annuity. Total benefits paid out must equal or exceed a Participant's contributions.

## Actuarial Present Value of Accumulated Plan Benefits (ASC 960)

**Interest Rate:** 8.00%, as provided by the Plan Sponsor, validated by the University's auditors.

Unless specifically mentioned, all remaining assumptions for the Actuarial Present Value of Accumulated Plan Benefits remain the same as described for the Funding Target Liability above.

## Actuarial Present Value of Accumulated Plan Benefits (ASC 715)

Measurement Date: June 30, 2018.

**Discount Rate:** 4.00% as of June 30, 2018, as provided by the Plan Sponsor, validated by the University's auditors.

**Administrative Expenses:** The expected long-term rate of return on plan assets reflects the expected expenses to be paid from the Plan.

**Asset Valuation Method:** Market Value of Assets as provided by the Plan Sponsor, reflecting \$531,884, \$300,407 and \$11,715,339 in assets for the 2015/2016, 2016/2017 and 2017/2018 fiscal years, respectively, in addition to the Fair Value of assets provided by the Trustee as of June 30, 2018. In addition, excluding receivable contributions and payables.

Unless specifically mentioned, all remaining assumptions for the Actuarial Present Value of Accumulated Plan Benefits remain the same as described for the ASC 960 Liability above.

### Other Assumptions

Costs were determined using the Projected Unit Credit Actuarial Cost Method, as required by Accounting Standards Codification 715-30 of the Financial Accounting Standards Board.

Under ASC 715-30,

- The <u>Service Cost Component</u> is defined as the actuarial present value of the benefits attributed by the pension benefit formula for service rendered by employees during the year beginning on the measurement date. The Service Cost Component is a portion of the Projected Benefit Obligation (PBO) and is unaffected by the funded status of the Plan.
- The <u>Projected Benefit Obligation</u> (PBO) is defined as the actuarial present value as of the measurement date of all benefits attributed by the pension benefit formula to employee service rendered prior to the measurement date. The PBO is computed with an assumption for future compensation levels.
- The <u>Accumulated Benefit Obligation</u> (ABO) is defined as the actuarial present value as of the measurement date of both vested and non-vested benefits attributed by the pension benefit formula to employee service rendered before the measurement date and based on employee service and compensation prior to the measurement date. The Accumulated Benefit Obligation (ABO) differs from the Projected Benefit Obligation (PBO) in that it does not include assumptions as to future compensation levels.
- The <u>Unamortized Prior Service Cost</u> is defined as that portion of prior service cost that has not been amortized as a part of Net Periodic Pension Cost.

The Net Periodic Pension Cost for the Plan consists of the following items:

- (a) The Service Cost Component.
- (b) The Interest Cost; which is the increase in the PBO during the year due to the passage of time.
- (c) The Expected Return on Plan Assets; which is the expected rate of return during the fiscal year based on the fair value of assets.
- (d) Amortization of Unamortized Prior Service Cost; the difference in the PBO prior to and after plan amendments amortized over the average future service of the active Plan members expected to receive a plan benefit on a straight line basis.

- (e) Amortization of Unamortized Net Gain or Loss: ASC 715-30 specified that the net Gain or Loss is the sum of (i) the difference between the actual and expected return of Plan assets, plus (ii) the difference between the actual and expected projected benefit obligation at the measurement date, and (iii) the outstanding balance of the net gain or loss from the prior period. The amount of gain or loss amortized is equal to the amount that the net gain or loss exceeds 10% of the greater of plan assets or projected benefit obligation at the measurement date. Any excess must be amortized over the average remaining service period of the active plan participants. If most of the plan participants are inactive, the amortization period is the expected future lifetime of the inactive participants.
- (f) Amortization of the Unamortized Net Obligation/(Asset) existing as of the date of the initial application of the statement.

## **SECTION XV**

This summary is intended as an outline of plan provisions and does not alter the intent or meaning of the provisions contained in the plan document.

### Effective Date:

March 1, 1977. Amended effective October 31, 2006 to freeze all benefit accruals. Last amended effective January 1, 2011 to comply with the Internal Revenue Code for a New Puerto Rico.

### Plan Year:

July 1 to June 30.

### **Eligibility for Participation**:

All Employees who are not covered by a collective bargaining agreement and make the required contributions become Participants after completion of 1,000 hours during the 12 month period preceding the first or any subsequent Anniversary Date following employment. No new employee will become a participant after October 31, 2006.

### **Employee Contributions:**

Participants must contribute 1% of the first \$4,800 of Compensation, 3% of the next \$9,600 of Compensation and 4% of Compensation in excess of \$14,400 beginning on their date of participation in the Plan. The Plan Sponsor provides the remaining funds needed to cover the costs of the benefits and administration of the Plan. No employee contributions will be permitted effective October 31, 2006.

### Active Service:

All years of continuous service with the Employer from the date of employment to the date of termination.

### Credited Service:

All years and completed months of service, excluding any period during which the Participant did not receive Compensation. No additional Credited Service will be granted after October 31, 2006.

### Normal Retirement Date:

The later of the Participant's attainment of age 65 or his completion of five (5) Years of Service.

### Compensation:

Basic Salary of the Participant, excluding bonuses and other fluctuating emoluments. Compensation earned after October 31, 2006 shall not be considered for purposes of determining the Accrued Benefit.

### Average Final Compensation:

The Compensation of a participant averaged over the highest consecutive 5 out of the final 10 calendar years of employment. Calendar years during which a Participant incurred a Period of Severance shall not be recognized if using Compensation of the period of service prior to the severance would provide a higher average.

### Normal Retirement Benefit:

1.95% of the Average Final Compensation multiplied by Credited Service (to a maximum of 20 years). Effective October 31, 2006, no further accrual of benefits will be permitted under the Plan.

### Early Retirement Benefit:

A Participant becomes eligible for an early retirement benefit after attainment of age 55 and completion of 5 Years of Service. The early retirement benefit is computed as the Normal Retirement Benefit with the Average Final Compensation and Credited Service as of the date of Early Retirement. A subsidized benefit can commence immediately by reducing the aforementioned benefit by 5/12% for each of the first 60 months and 5/24% for each month thereafter by which the benefit commencement date precedes the Normal Retirement Date.

Unreduced early retirement benefits are available for Participants that elect early retirement after attainment of age 55 with completion of 25 Years of Service.

### Vesting:

Participants are fully vested in their accrued benefits on completion of 5 Years of Service. Participants with less than 5 Years of Service have no vested rights under the Plan and are entitled solely to a refund of their contributions with interest.

### Vested Deferred Benefit:

A benefit deferred to the Normal Retirement Date computed as the Normal Retirement Benefit but based on the Average Final Compensation and Years of Credited Service as of the date of termination. Participants that terminate with a Vested Deferred Benefit may elect earlier commencement of a reduced benefit beginning on or after age 55 (reduced in the same fashion as the Early Retirement Benefit).

### **Disability Retirement Date:**

A participant shall be eligible for disability retirement after completion of 5 Years of Service and disabled for at least 6 months. Effective October 31, 2006, no additional accrual of benefits will be permitted for purposes of a Disability Benefit.

### **Disability Benefit:**

A benefit deferred to the Normal Retirement Date computed as the Normal Retirement Benefit but based on Average Final Compensation and Years of Credited Service as of the date of disability. If benefits commence prior to the Participant's age 55, the benefit to be received will be the actuarially equivalent benefit of a benefit payable starting at age 55.

### **Death Benefits:**

### For Participants who are at or over the earliest retirement age:

The surviving spouse will receive an immediate life annuity equal to ½ of the joint and 50% survivor actuarial equivalent of the Participant's early retirement benefit. If unmarried, the Participant's contributions with interest are refunded to the designated beneficiary.

### For Vested Participants who have not yet reached the earliest retirement age:

The surviving spouse will be entitled to receive a life annuity equal to ½ of the joint and 50% survivor actuarial equivalent of the participant's vested accrued benefit at the time of death with commencement of payments at the earliest date the deceased Participant could have commence benefits had he lived. If unmarried, the Participant's contributions with interest are refunded to the designated beneficiary.

### Forms of Benefit Payments:

Unless specified by the participant or by law, all benefits to single participants will be paid in the form of a life annuity. Benefits are payable to married participants in the form of a joint and 50% survivor annuity actuarially equivalent to the life annuity. Total benefits paid out must equal or exceed a Participant's contributions.