

PUERTO RICO TEACHERS RETIREMENT SYSTEM

June 30, 2014 Actuarial Valuation Report

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May 18, 2015

Ms. Wanda Santiago Lopez
Executive Director
Puerto Rico Teachers Retirement System
Capital Center Building, North Tower
235 Arterial Hostos Avenue
8th Floor
San Juan, PR 00918

Dear Ms. Santiago:

This report presents the results of the actuarial valuation of the Puerto Rico Teachers Retirement System (PRTRS) as of June 30, 2014. Section I contains highlights of the valuation including a general discussion. The subsequent Sections contain schedules summarizing the underlying calculations, asset information, participant data, plan benefits and actuarial assumptions and methods. This valuation reflects Act 160-2013 (enacted on December 24, 2013), taking into account the Puerto Rico Supreme Court decision of April 11, 2014.

Purpose

The main purposes of this report are:

- to present information pertaining to the operation of the plan for inclusion in financial statements based on relevant Statements of the Government Accounting Standards Board (GASB);
- to review the experience under the plan since the previous valuation; and
- to assess the relative funded position of the plan.

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The use of this report for purposes other than those stated above may not be appropriate and should be reviewed with Milliman.

The report was prepared solely to provide assistance to the Commonwealth of Puerto Rico Teachers Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PRTRS's operations, and uses PRTRS's data, which Milliman has not audited. Milliman and PRTRS do not intend to benefit and assume no duty or liability to other parties who receive this report. Milliman and PRTRS recommend that any third party recipient of this report be aided by its own actuary or other qualified professional when reviewing the Milliman report. Any distribution of this report should be made in its entirety.

Data Reliance

In performing this analysis, we relied on the census data, asset information, and other information (both written and oral) provided by the System. We have not audited or verified the census data, asset information, or other information. To the extent that any of these are inaccurate or incomplete, the results of this valuation may likewise be inaccurate or incomplete.

We did not audit the data used in our analysis, but did review it for reasonableness and consistency and have not found material defects in the data. It is possible that material defects in the data would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The asset information used for the valuation was taken from unaudited financial statements provided by PRTRS as of June 30, 2014 and is subject to change upon audit.

Future Measurements

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits. While the valuation is based on an array of individually reasonable

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assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following:

- Plan experience differing from the actuarial assumptions;
- Future changes in the actuarial assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as potential additional contribution requirements due to changes in the plan's funded status); and,
- Changes in the plan provisions or accounting standards.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such measurements.

Certification

We hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting recommendations of the American Academy of Actuaries and are based on actuarial assumptions and methods adopted by the System. All of the actuarial assumptions were developed by Milliman in consultation with PRTRS. We believe that the actuarial assumptions and methods used in this actuarial valuation are reasonable for the main purposes of this report as stated herein.

Actuarial computations presented in this report are for purposes of fulfilling financial accounting requirements under the GASB Statements 25, 27, 45, and 67. The calculations in the enclosed report have been made on a basis consistent with our understanding of the plan provisions described in Section VIII of this report, and of the applicable GASB Statements. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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Qualifications

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

We are members of the Society of Actuaries and meet the qualification standards of the American Academy of Actuaries to render this actuarial opinion.

Respectfully submitted,



By: Glenn D. Bowen, F.S.A.
Member American Academy of Actuaries



Katherine A. Warren, F.S.A.
Member American Academy of Actuaries

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SECTION I – SUMMARY

A. Summary of Principal Results of June 30, 2014 Actuarial Valuation

GASB 67 Accounting (\$ amounts in thousands)

	July 1, 2013 <u>Valuation</u>	June 30, 2014 <u>Valuation</u>
Total Pension Liability ¹	\$14,792,649	\$14,807,703
Net Fiduciary Position	1,906,882	1,703,779
Net Pension Liability	12,885,767	13,103,924

GASB 45 Accounting (\$ amounts in thousands)

	June 30, 2013 <u>Valuation</u>	June 30, 2014 <u>Valuation</u>
Actuarial Accrued Liability ¹	\$792,875	\$543,205
Actuarial Value of Assets	<u>0</u>	<u>0</u>
Unfunded Actuarial Accrued Liability	792,875	543,205
Employer Normal Cost as a percent of payroll	13,759 1.10%	0 0.00%
Annual Required Contribution for upcoming fiscal year as a percent of payroll	46,403 3.72%	36,292 3.10%

¹ A discussion of the benefits included in the Total Pension Liability and Actuarial Accrued Liability begins on page 3 of this section.

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	July 1, 2012 Census Data <u>Collection</u>	July 1, 2013 Census Data <u>Collection</u> ¹
<i>Participant Data</i>		
<u>Active Members</u>		
Number	42,707	39,343
Average Salary	\$30,275	\$29,768
Total Annual Salary	\$1,292,974,899	\$1,171,153,830
<u>Retirees</u>		
Number	31,370	35,278
Average Monthly Basic System Benefit	\$1,371	\$1,455
Average Monthly System Administered Benefit	\$66	\$56
<u>Disabled Members</u>		
Number	2,171	2,235
Average Monthly Basic System Benefit	\$475	\$502
Average Monthly System Administered Benefit	\$63	\$59
<u>Beneficiaries</u>		
Number	2,964	3,088
Average Monthly Basic System Benefit	\$390	\$404
Average Monthly System Administered Benefit	\$20	\$18
<u>Terminated Vested Members</u>		
Number	738	689
Average Monthly Basic System Benefit	\$736	\$720

Basic System Benefit and System Administered Benefit amounts shown above are for pension benefits, including minimum benefits and COLAs. Special Law "bonus" benefits are not reflected.

¹ The July 1, 2013 Census Data Collection information reflects new retirements during 2013-2014.

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SECTION I – SUMMARY

B. General Discussion

Basic System Benefits

As summarized in Section VIII, the Puerto Rico Teachers Retirement System (PRTRS) provides benefits to members, or their beneficiaries, upon:

- Retirement
- Disability
- Vested withdrawal
- Death
- Nonvested withdrawal (return of contributions)

Annuity benefits are subject to a \$300 monthly minimum (if hired before August 1, 2014). The statutory funding requirement for these benefits for the 2014-2015 fiscal year includes member contributions of 9% of payroll for members hired on or before July 31, 2014 and 10% of payroll for members hired August 1, 2014 and later, and employer contributions of 12.5% of payroll. Employer statutory funding requirements in future years will increase under Act 114-2011 and Act 160-2013 (see page 4).

These benefits will be referred to as the “Basic System Benefits” throughout this report.

System Administered Benefits

Also summarized in Section VIII are benefits granted under a series of special laws that are administered by PRTRS, including:

- Additional minimum pension benefits (if hired prior to August 1, 2014)
- Additional minimum death benefit (if retired prior to August 1, 2014)
- Ad-hoc cost-of-living adjustments (COLAs)
- Medical insurance plan contribution (if retired prior to August 1, 2014)
- Medication bonus (if retired prior to August 1, 2014)
- Christmas bonus (if retired prior to August 1, 2014)

These benefits are funded on a pay-as-you-go basis from the General Fund of the Commonwealth of Puerto Rico and will be referred to as “System Administered Benefits” throughout this report. These benefits are not an obligation of the PRTRS assets.

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Act 160-2013

During fiscal year 2013-2014, Act 160-2013 was enacted on December 24, 2013. Act 160-2013 supersedes Act 91-2004. Act 160-2013 was modified by an April 11, 2014 decision of the Puerto Rico Supreme Court. A summary of the changes in benefits due to Act 160-2013, reflecting the Supreme Court decision, appears later in this section.

Act 114-2011 Employer Contributions

During the 2010-2011 fiscal year, Act 114-2011 was enacted which increased employer contributions from the prior 8.5% of compensation to 9.5% of compensation effective July 1, 2011. For the next four fiscal years effective July 1, employer contributions will increase annually by 1% of compensation. For the next five fiscal years, employer contributions will increase annually by 1.25%, reaching an ultimate employer contribution rate of 19.75% effective July 1, 2020. Act 160-2013 maintains the same structure set forth in Act 114-2011 and further provides for an ultimate employer contribution rate of 20.525%, effective July 1, 2021.

Other Contributions

In addition to the payroll-based contributions described under Basic System Benefits above, Article 1.1 of Act 160-2013 (discussed further below in this section) defines the following additional contributions:

- 1.1.(a) Annual Additional Contribution - the annual contribution certified by the external actuary of the System, prepared within at least one hundred twenty (120) days before the beginning of Fiscal Year 2018-2019 and every two (2) years thereafter until fiscal year 2041-2042, as necessary to prevent the value of the projected gross assets of the System from falling below three hundred million dollars (\$300,000,000) during any subsequent fiscal year, subject to the provisions of Article 7.1 of this Act.
- 1.1.(c) Teacher's Justice Uniform Contribution - the annual contribution to be made to the System equal to \$30 million in fiscal year 2016-2017, to \$30 million in fiscal year 2017-2018, and to \$60 million in fiscal year 2018-2019, and subsequent years until fiscal year 2041-2042.

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Act 160-2013 also provides that effective July 1, 2014, the System will receive a supplemental contribution of \$1,675 each fiscal year from the General Fund for each pensioner (including beneficiaries receiving survivor benefits) notwithstanding if the pensioner retired prior to or on or after August 1, 2014. This contribution will pay for the Medical Insurance Plan Contribution (up to \$1,200 per member), the Christmas Bonus (\$200 per member), and Medication Bonus (\$100 per member) payable to members who retired prior to August 1, 2014. The excess amount of the supplemental contributions will remain in the System to pay down the unfunded liability.

System Experience since Prior Valuation

The approximate actual rate of return since the prior valuation was 11.20% for 2013-2014. This asset gain served to decrease the System's net pension liability.

Due to the switchover from end-of-year to beginning-of-year census data for FY 2013-2014 (discussed in more detail later), demographic gain/loss during the year is limited to the update of the census data to reflect outsized retirement activity during the year, plus the difference between actual and expected benefit payments, which arise from the differences in retirement activity and also actual mortality versus expectations. During 2013-2014 these differences resulted in a loss of \$170 million.

Changes in Assumptions since Prior Valuation

This valuation reflects an increase in the investment return assumption from 6.25% per year to 6.65% per year. The 6.65% assumption reflects the asset allocation for the non-loan portion of the portfolio that was adopted by the Board during December 2010 as shown below and Milliman's capital market assumptions as of June 30, 2014. In addition, the assumption reflects that loans to members comprise approximately 20% of the portfolio and, as provided by the System, have an approximate return of 9.6% with no volatility.

Asset Class	Target Allocation
Domestic Equity	25%
International Equity	10%
Fixed Income	64%
Cash	1%

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Under GASB 25/27, the investment return assumption was used to discount all projected Basic System Pension Benefits and System Administered Pension Benefits to determine the Actuarial Accrued Liability. Under GASB 67, the investment return assumption is an input that is used in the calculation of the single equivalent interest rate that is used to discount these benefits to determine the Total Pension Liability. GASB 67 also requires that the plan sponsor select a municipal bond index for use in developing the single equivalent interest rate. The index selected for PRTRS is the Bond Buyer General Obligation 20-Bond Municipal Bond Index. The index rate decreased from 4.63% as of June 30, 2013 to 4.29% as of June 30, 2014.

This valuation also reflects a decrease in the interest rate assumption for GASB 45 purposes from 3.25% per year to 3.10% per year. The 3.10% assumption reflects Milliman's capital market assumptions as of June 30, 2014 and assumes that the Commonwealth's General Fund (the assets used to pay the GASB 45 benefits) is invested approximately in 75% cash and 25% short-term bonds.

In addition, several assumptions were revised due to the Act 160-2013 changes including the form of payment assumption for members hired on or before July 31, 2014 who retire August 1, 2014 or later and incidence of retirement and disability, commencement of benefits for terminated vested members, and form of payment assumptions for members hired August 1, 2014 or later. The assumptions for the Defined Contribution Account were added due to the Act 160-2013 changes.

This valuation also reflects a reduction in the general wage inflation assumption from 3.5% to 2.5% and a salary freeze from July 1, 2014 until July 1, 2017 due to Act 66-2014.

We have an expectation that the implementation of Act 160-2013 changes will impact the prevalence of service purchase activity. We plan to review this assumption next year when experience data becomes available.

Changes in Methods since the Prior Valuation

The actuarial cost method used for the special bonus benefits administered by PRTRS and paid by the General Fund was revised from the level dollar variation of the entry age normal method to the level percentage of payroll variation of the entry age normal method to comply with the requirements of GASB 67. The actuarial cost method for the medical insurance plan contribution (GASB 45) was also changed from the level dollar

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variation of the entry age normal method to the level percentage of payroll variation of the entry age normal method.

The census data collection date has changed from end-of-year to beginning-of-year. For this switchover year, the June 30, 2013 census data used in the prior valuation is also used as the July 1, 2013 census data for the current valuation. Due to outsized retirement activity during the 2013-2014, 2,234 reported retirements (2,210 from active status) were reflected. The liability results as of June 30, 2014 are based on projecting the System obligations determined as of the census data collection date of July 1, 2013 for one year, using roll-forward methods and assuming no liability gains or losses.

Because Act 160-2013 eliminated the Medical Insurance Plan Contribution for members retiring on or after August 1, 2014, the amortization period for GASB 45 accounting was reduced to 20 years (the average life expectancy of the closed group of current retirees who will receive this benefit) and the amortization method was changed to a level dollar basis.

Changes in Plan Provisions since Prior Valuation

Act 160-2013 (enacted December 24, 2013) proposed benefit changes for all members of PRTRS. Based on the Puerto Rico Supreme Court decision (dated April 11, 2014), many changes were struck down. A summary of the changes that passed Supreme Court review follows below based on the member's date of hire.

Members hired before August 1, 2014

The following changes were made for members hired before August 1, 2014:

- The stop date for the additional contribution required for retirement due to age and service prior to age 55 and 30 years of Creditable Service was changed to age 55 for members who retired on or after December 24, 2013.
- The payroll-based employer contributions are also required to be made on behalf of members who retired due to age and service while the member is paying the additional contribution.
- System-funded post-retirement death benefits were eliminated for members who retire on August 1, 2014 or later. If a member elects an optional form of annuity with a survivor benefit, the member's benefit will be actuarially reduced to reflect the cost of the survivor benefit.

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- The in-service one-year of salary lump sum death benefit was eliminated effective July 31, 2014.
- The Christmas Bonus was reduced from \$600 to \$200, and the Summer Bonus of \$100 was eliminated for members in pay status.
- All Special Law bonus benefits (Christmas Bonus, Medication Bonus, and Medical Insurance Plan Continuation) were eliminated for members retiring on or after August 1, 2014.
- The accumulation rate on service purchase was increased from 2% compound per year to 9.5% compound per year.

Members hired on or after August 1, 2014

New members would be covered by a contributory hybrid plan. A hybrid plan, such as a cash balance plan, determines the benefit amount based on a formula using contributions and earning credits, has notional individual accounts for members, and provides lifetime annuity benefits. The primary provisions of the contributory hybrid plan are as follows:

- Member contributions of
 - 10.00% of compensation for Fiscal Years 2014-2015 through 2016-2017
 - 13.12% of compensation for Fiscal Years 2017-2018 through 2019-2020
 - 14.02% of compensation for Fiscal Year 2020-2021 and each year thereafter
- The member contributions are credited to a notional individual account each year.
- The notional individual account is credited with investment yield for each semester of the fiscal year as determined by the Board. The investment yield determined by the Board shall never be less than 80% of the System's investment portfolio yield during each semester, less investment fees.
- Normal retirement age of 62 with 5 or more years of service and a notional account balance of \$10,000 or more.
- Members who separate from employment with less than 5 years of service or who have a notional account balance less than \$10,000 would receive their notional account balance as a lump sum.
- Members who separate from employment with 5 or more years of service and a notional account balance of \$10,000 or more would receive their benefit in the form of a mandatory annuity.

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- Members who separate at or after normal retirement age would receive an immediate annuity.
- Members who separate prior to normal retirement age for reasons other than disability would receive a deferred annuity commencing at normal retirement age, with interest credits continuing to accrue to the account during the deferral period.
- Members who separate prior to normal retirement age due to disability would receive an immediate annuity.
- The mandatory annuity would be a “modified cash refund” of the member’s account balance - which means that if the accumulated annuity payments at the time of post-retirement death are less than the account balance at the time of retirement, then the beneficiary would receive the remainder of the account.
- Beneficiaries of members who die prior to retirement would receive a lump sum payment of the members’ accumulated account balance at the time of death.

GASB Pension Accounting Information

Accounting results for pension benefits were previously calculated under Governmental Accounting Standards Board Statement No. 25, “*Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*” (GASB 25), and Statement No. 27, “*Accounting for Pensions by State and Local Governmental Employers*” (GASB 27).

GASB has issued two new statements: Statement No. 67, “*Financial Reporting for Pension Plans*” (GASB 67), and Statement No. 68, “*Accounting and Financial Reporting for Pensions*” (GASB 68). GASB 67 and 68 replace GASB 25 and 27 respectively. The effective date of GASB 67 (which applies to financial reporting on a plan basis) is the fiscal year ending June 30, 2014. The effective date of GASB 68 (which applies to financial reporting by contributing employers) is the fiscal year ending June 30, 2015.

Pension accounting results in Section III of this report have been prepared under GASB 67 parameters to determine a Total Pension Liability at both the beginning and the end of the fiscal year. The Net Fiduciary Position at each date is then subtracted to arrive at the Net Pension Liability at each date.

Whereas the Net Pension Obligation (the balance sheet item under the prior standards) reflected a cumulative tally of annual accounting expense in excess of annual employer

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contributions, the Net Pension Liability (the balance sheet item under the new standards) reflects the full amount of the unfunded liability, and thus will be significantly larger and also more volatile from year to year.

For informational purposes, Section V presents a roll-up of the Net Pension Obligation from June 30, 2013 to June 30, 2014. This allows for a comparison between the Net Pension Obligation as of June 30, 2014 (as if the prior standards were still effective) and the Net Pension Liability as of June 30, 2014 (calculated under the new standards). No GASB 25/27 calculations will be performed subsequent to June 30, 2014.

GASB OPEB Accounting Information

Accounting results for the Medical Insurance Plan Contribution in Section VI of this report are calculated under Governmental Accounting Standards Board Statement No. 45, “*Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*” (GASB 45). (Note that the Medication Bonus has been included in the GASB 67 results as a Pension Benefit because members can receive the bonus without submitting documentation to substantiate medication expenses.)

There are no member or employer contributions on behalf of the Medical Insurance Plan Contribution. This benefit is financed on a pay-as-you-go basis from the General Fund of the Commonwealth of Puerto Rico. Since this benefit is not funded in advance, the ARC for this benefit has been calculated based on an assumed investment return rate of 3.10% based on the asset allocation of the Commonwealth’s general assets that are used to pay this benefit.

Note that GASB issued an exposure draft in 2014 that broadly seeks to make changes to GASB 45 similar to how GASB 25/27 were updated by GASB 67/68.

GASB 67 Projection to Determine Date of Depletion (if any)

GASB 67 requires that a projection be performed for the System to determine a date of depletion, if any, and the resulting effective discount rate. This complex projection is used to determine the point at which the System is expected to deplete assets per GASB 67. The analysis includes a projection of member and employer contributions, benefit payments, and administrative expenses attributable to current members. Amounts attributable to members hired in the future are excluded except to the extent that employer contributions exceed the cost of benefits for those future members.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION I – SUMMARY

Because the date of depletion projection does not incorporate all projected cash inflows to and outflows from the System, the results will differ from those in a comprehensive cash flow projection that models all inflows and outflows. In other words, the GASB 67 date of depletion is not the same as the date that the System would be expected to exhaust assets.

Once a depletion date has been determined, it is used as an input in the determination of the accounting liability as follows:

- The present value of all future benefits for GASB 67 accounting purposes is determined as follows:
 - For projected benefit payments occurring prior to the date of depletion, the discount rate is based on the System's expected return on assets.
 - For projected benefit payments occurring after the date of depletion, the discount rate is based on a tax-free municipal bond index.
- Based on the resulting present value of all future benefits for GASB 67 accounting purposes, a single equivalent interest rate can be imputed that yields the same present value.

Subsection A of Section III shows the results of the GASB 67 date of depletion projection as of the end of the fiscal year, which then generates the discount rate used in the determination of the Total Pension Liability. As directed by the Treasury Department, the Government Development Bank, the Office of Management and Budget, and the System, the date of depletion projection does not include any amounts from the additional contributions defined in Article 1.1 of Act 160-2013.

Cash Flow Projection for Basic System Benefits

PRTRS is a mature retirement system with a significant retiree population. Based on the current statutory funding requirements, the annual benefit payments and administrative expenses paid by the System are significantly larger than the member and employer contributions made to the System. Thus investment income must be used to cover this negative cash flow. As the negative cash flow exceeds expected investment income, System assets are expected to continually decline. It is expected that PRTRS' liabilities for the Basic System Benefits will continue to increase significantly over time. Thus the funded status can be expected to decline over time based on the actuarial assumptions used to prepare this actuarial valuation.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION I – SUMMARY

Note that while employer contributions on behalf of new members hired on or after August 1, 2014 accrue to the System and assist in funding the liability for benefits payable to existing members, increases in member contribution rates under the contributory hybrid plan in Act 160-2013 (new members) would not accrue to the System. Rather they would serve to increase the ultimate annuity benefits to be paid upon retirement (or the refund to be paid for members who separate with less than 5 years of service, have notional individual accounts less than \$10,000, or who die in active service). The change in benefit structure for new members hired on or after August 1, 2014 requires PRTRS to make a decision to either segregate member accounts or commingle member accounts with DB plan assets. It is uncertain at this time if the hybrid plan member contributions will be placed in segregated accounts or if they will be commingled with DB plan assets and thus be available to pay benefits to current retirees if necessary. We note that while commingling hybrid plan member assets with DB plan assets has occurred in the Puerto Rico Government Employees Retirement System since the implementation of System 2000, if the same decision that allows hybrid plan assets to be available to pay benefits to current retirees occurs for PRTRS, there would be a need to “catchup” to ultimately generate enough future dollars to back member accounts with actual assets.

Even reflecting the Act 160-2013 benefit changes that were upheld by the Supreme Court decision, if the additional contributions defined in Article 1.1 are not made, PRTRS will continue being rapidly disfunded and assets are expected to be exhausted during fiscal year 2018-2019.

Management Information

Subsection A of Section IV of this report contains a projection of the Annual Additional Contribution payable from fiscal year 2018-2019 through 2041-2042 based on the census data, plan provisions, and actuarial assumptions used in this valuation.

Subsection B of Section IV of this report contains an alternative projection to determine the GASB 67 date of depletion, if any, assuming that the additional contributions defined in Article 1.1 of Act 160-2013 are paid when due.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION II - SYSTEM ASSETS

A. Statement of Fiduciary Net Position

	<u>June 30, 2013</u>	<u>June 30, 2014</u>
Assets		
Cash and cash equivalents	\$67,677,000	\$17,506,000
Receivables and prepaid expenses	31,318,000	25,161,000
Investments:		
Bonds	742,146,000	649,774,000
Stocks	97,299,000	92,900,000
Non-exchange traded mutual funds	546,775,000	503,619,000
Private equity investments	14,823,000	11,170,000
Total loans to plan members	411,032,000	420,544,000
Other assets	<u>781,000</u>	<u>846,000</u>
Total investments	1,812,856,000	1,678,853,000
Invested securities lending cash collateral	48,420,000	15,152,000
Capital assets	<u>19,312,000</u>	<u>17,325,000</u>
Total assets	\$1,979,583,000	\$1,753,997,000
Liabilities		
Securities lending cash collateral	\$48,420,000	\$15,152,000
Other liabilities	<u>24,281,000</u>	<u>35,066,000</u>
Total liabilities	\$72,701,000	\$50,218,000
Net position restricted for pensions	\$1,906,882,000	\$1,703,779,000

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION II - SYSTEM ASSETS

B. Statement of Changes in Fiduciary Net Position

June 30, 2014

Additions

a. Contributions

Employer Contributions for Basic Benefits	\$139,453,000
Employer Contributions for Special Benefits	49,914,000
Member Contributions	115,461,000
Transfers in	<u>4,131,000</u>
Total Contributions	\$308,959,000

b. Investment Income

Interest Income	\$64,207,000
Dividend Income	2,148,000
Net Appreciation of Investments	126,796,000
Other Income	1,416,000
Investment Related Expenses	<u>(3,128,000)</u>
Net Investment Income	\$191,439,000

Total Additions \$500,398,000

Deductions

Refund of Contributions	\$10,707,000
Annuities and Death Benefits	626,027,000
Special Benefits	46,964,000
Administrative Expenses	<u>19,803,000</u>
Total deductions	\$703,501,000

Net Increase (Decrease) (\$203,103,000)

Net position restricted for pensions

Beginning of year (June 30, 2013)	1,906,882,000
End of year (June 30, 2014)	\$1,703,779,000

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION II - SYSTEM ASSETS

C. Estimated Annual Rate of Return for year ending June 30, 2014

	<u>Market Value</u>
1. Value of Assets as of June 30, 2013	\$1,906,882,000
2. Total Contributions	308,959,000
3. Benefit Payments and Expenses	703,501,000
4. Value of Assets as of June 30, 2014	1,703,779,000
5. Non-Investment Increment: (2) - (3)	(394,542,000)
6. Investment Increment: (4) - (1) - (5)	191,439,000
7. Time Weighted Value: (1) +.5 * (5)	1,709,611,000
8. Estimated Annual Rate of Return: (6) / (7)	11.20%

D. Estimated Historical Rates of Return

<u>Plan Year Ending</u>	<u>Market Value</u>
June 30, 2014	11.20%
June 30, 2013	8.26%
June 30, 2012	1.73%
June 30, 2011	23.37%
June 30, 2010	15.89%
5-year Compounded Annual Return	11.86%

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION III – GASB 67 ACCOUNTING INFORMATION

A. Projection to Determine GASB 67 Date of Depletion (if any)

The projection was determined on a deterministic basis and reflects the following:

- Projected investment income is based on the June 30, 2014 investment return assumption of 6.65% per year.
- All demographic assumptions are assumed to be met in future years (i.e. – no gains or losses from demographic sources are expected to occur).
- Employer contributions in each future year are calculated as follows:
 - Under Act 114-2011, the statutory payroll-based employer contribution rate is 12.50% for the 2014-2015 fiscal year. For the next fiscal year 2015-2016, this rate will increase by 1%. For the next five fiscal years starting with 2016-17, this rate will increase annually by 1.25%, reaching an employer contribution rate of 19.75% effective July 1, 2020. Under Act 160-2013, effective July 1, 2021 and later fiscal years, the statutory payroll-based employer contribution rate will be 20.525%.
 - The employer contributions attributable to members who were active as of the valuation date were calculated based on the statutory payroll-based employer contribution rate (above) applied to the payroll for those members.
 - The employer contribution rate to the System on behalf of future hires exceeds the net employer normal cost rate (on entry age normal cost method basis with a 6.65% investment return assumption), which is thus available to be applied toward benefits for existing members. This excess employer contribution rate was determined as follows:
 - Based on the projections, the gross normal cost rate for future hires on and after August 1, 2014 is 11.20% of payroll based on the plan provisions and actuarial assumptions set forth in this report.
 - With employee contribution rates of 10.00% of payroll effective from August 1, 2014 to June 30, 2017, 13.12% of payroll from July 1, 2017 to June 30, 2020, and 14.02% of payroll effective July 1, 2020 for members hired on and after August 1, 2014, the net employer normal cost rate for future hires is negative. Therefore, the entirety of the Act 114-2011 statutory employer contribution rate based on future hire payroll can be applied toward benefits for existing members.
- As directed by the Treasury Department, the Government Development Bank, the Office of Management and Budget, and the System, this projection does not

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION III – GASB 67 ACCOUNTING INFORMATION

include any amounts from the additional contributions defined in Article 1.1 of Act 160-2013. This decision was based on the following:

- The actual fiscal and budgetary condition of the Commonwealth of Puerto Rico, and
- Even though there is no prior collection history of the Commonwealth's contributions required by Act 160-2013, as a result of budgetary constraints, the Commonwealth did not pay similar additional contributions to the Puerto Rico Government Employees Retirement System ("PRGERS") for fiscal year 2013-2014 and significantly reduced its additional contribution to PRGERS for fiscal year 2014-2015.
- This projection reflects 2,210 actual retirements from active status during 2013-2014 in the census data, decreasing the active membership from 41,553 as of July 1, 2013 to 39,343. In determining projected employer contributions, the active membership was then assumed to further decrease to 37,000 and to remain at that lower level throughout the projection period (i.e. – members who leave are replaced, but no net new hiring occurs). Please note that projected member contributions, benefit payments, and administrative expenses for future hires are excluded from this projection.
- The new entrant cohort used for projection purposes is based on members hired between June 30, 2012 and June 30, 2013. Salaries for future new entrant cohorts were assumed to remain level through June 30, 2017 due to Act 66-2014 and then to increase 2.5% per year thereafter.
- Administrative expenses were assumed to remain level. In each future year, the administrative expenses attributable to current members were determined by applying the ratio of current member payroll to total payroll to the total administrative expenses.

As shown on the end of this subsection, the System assets are expected to be exhausted during fiscal year 2018-2019 under this GASB 67 projection basis.

Accordingly, based on the projected 2018-2019 year of depletion, the investment return of 6.65% per year as of June 30, 2014, and the municipal bond index of 4.29% as of June 30, 2014, the single equivalent interest rate as of June 30, 2014 was determined to be 4.33%. This single equivalent interest rate yields the same present value of all future benefits as using the expected return on plan assets until the 2017-2018 fiscal year and the tax-free municipal bond index beginning with the 2018-2019 fiscal year for the discount rate.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM
SECTION III – GASB 67 ACCOUNTING INFORMATION

GASB 67 Projection as of July 1, 2013

As this is the first year of GASB 67 accounting, a similar projection was performed as of June 30, 2013 to determine the single equivalent discount rate as of June 30, 2013 used for the Total Pension Liability as of the beginning of the fiscal year. Based on the GASB 67 projection as of June 30, 2013, which did not reflect Act 160-2013 nor Act 66-2014, the System assets were expected to be exhausted in 2018-2019.

Accordingly, based on the projected 2018-2019 year of depletion, the investment return of 6.25% per year as of June 30, 2013, and the municipal bond index of 4.63% as of June 30, 2013, the single equivalent interest rate as of June 30, 2013 was determined to be 4.66%. This single equivalent interest rate yields the same present value of all future benefits as using the expected return on plan assets until the 2017-2018 fiscal year and the tax-free municipal bond index beginning with the 2018-2019 fiscal year for the discount rate.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM
SECTION III – GASB 67 ACCOUNTING INFORMATION

GASB 67 Projection as of June 30, 2014 to determine Date of Depletion (if any)

Fiscal Year Ending	Employer Contribution Rate	Beginning of Year Assets	Estimated Payroll for Members Active as of the Valuation Date	Estimated Payroll for Members Hired After the Valuation Date	Estimated Employer Payroll Based Contribution	Estimated Gross Supplemental Contribution (per Act 160-2013 Section 4.9(b))	Estimated Special "Bonus" Benefits paid from Employer Supplemental Contribution	Estimated Net Employer Supplemental Contribution (per Act 160-2013 Section 4.9(b))	Estimated Teacher's Justice Uniform Contribution (assumed paid end of year)	Estimated Annual Additional Contribution (assumed paid end of year)	Estimated Act 70-2010 Contribution	Estimated Employer Contribution per Act 160-2013 Section 4.4(c)	Estimated Contribution from Members hired before August 2014	Estimated Contribution from Members hired after July 2014 Active as of the Valuation Date	Estimated Contribution from All Members Active as of the Valuation Date	Estimated Benefit Payments to Retired and Active Members as of the Valuation Date	Estimated Administrative Expenses for Retired and Active Members as of the Valuation Date	Estimated Investment Income	End of Year Assets
06/30/2015	12.500%	1,703,779,000	1,124,756,000	0	140,595,000	68,709,000	49,671,000	19,038,000	0	0	304,000	3,876,000	101,228,000	0	101,228,000	650,113,000	21,705,000	99,994,000	1,396,995,000
06/30/2016	13.500%	1,396,995,000	1,090,652,000	0	147,238,000	69,394,000	49,107,000	20,287,000	0	0	323,000	3,048,000	98,159,000	0	98,159,000	659,747,000	21,705,000	79,409,000	1,064,006,000
06/30/2017	14.750%	1,064,006,000	1,052,795,000	17,220,000	157,901,000	70,184,000	48,058,000	22,126,000	0	0	340,000	2,642,000	94,752,000	0	94,752,000	672,384,000	21,346,000	57,148,000	705,185,000
06/30/2018	16.000%	705,185,000	1,043,137,000	43,492,000	173,861,000	71,065,000	46,977,000	24,088,000	0	0	352,000	2,411,000	93,882,000	0	93,882,000	687,917,000	20,836,000	33,346,000	324,372,000
06/30/2019	17.250%	324,372,000	1,028,068,000	73,133,000	189,957,000	71,995,000	45,864,000	26,131,000	0	0	374,000	2,124,000	92,526,000	0	92,526,000	705,627,000	20,264,000	8,001,000	0
06/30/2020	18.500%	0	1,006,016,000	106,902,000	205,890,000	73,032,000	44,719,000	28,313,000	0	0	387,000	2,119,000	90,541,000	0	90,541,000	727,238,000	19,620,000	0	0
06/30/2021	19.750%	0	977,522,000	146,532,000	222,001,000	74,266,000	43,544,000	30,722,000	0	0	388,000	1,980,000	87,977,000	0	87,977,000	752,470,000	18,876,000	0	0
06/30/2022	20.525%	0	945,239,000	189,885,000	232,984,000	75,522,000	42,342,000	33,180,000	0	0	279,000	1,849,000	85,071,000	0	85,071,000	779,330,000	18,074,000	0	0
06/30/2023	20.525%	0	910,810,000	236,324,000	235,449,000	76,740,000	41,115,000	35,625,000	0	0	207,000	1,759,000	81,973,000	0	81,973,000	806,340,000	17,233,000	0	0
06/30/2024	20.525%	0	875,962,000	284,934,000	238,274,000	77,841,000	39,864,000	37,977,000	0	0	191,000	1,578,000	78,837,000	0	78,837,000	832,315,000	16,378,000	0	0
06/30/2025	20.525%	0	841,658,000	334,718,000	241,451,000	78,738,000	38,588,000	40,150,000	0	0	172,000	1,466,000	75,749,000	0	75,749,000	856,021,000	15,529,000	0	0
06/30/2026	20.525%	0	807,481,000	385,699,000	244,900,000	79,440,000	37,292,000	42,148,000	0	0	91,000	1,459,000	72,673,000	0	72,673,000	877,938,000	14,689,000	0	0
06/30/2027	20.525%	0	772,885,000	438,305,000	248,597,000	79,988,000	35,977,000	44,011,000	0	0	58,000	1,546,000	69,560,000	0	69,560,000	898,268,000	13,850,000	0	0
06/30/2028	20.525%	0	738,426,000	492,763,000	252,701,000	80,413,000	34,642,000	45,771,000	0	0	6,000	1,582,000	66,458,000	0	66,458,000	917,007,000	13,018,000	0	0
06/30/2029	20.525%	0	703,570,000	548,187,000	256,923,000	80,645,000	33,290,000	47,355,000	0	0	0	1,773,000	63,321,000	0	63,321,000	934,136,000	12,200,000	0	0
06/30/2030	20.525%	0	664,512,000	605,973,000	260,767,000	80,794,000	31,920,000	48,874,000	0	0	0	1,999,000	59,806,000	0	59,806,000	952,608,000	11,353,000	0	0
06/30/2031	20.525%	0	619,514,000	669,147,000	264,498,000	81,031,000	30,533,000	50,498,000	0	0	0	2,202,000	55,756,000	0	55,756,000	973,624,000	10,435,000	0	0
06/30/2032	20.525%	0	569,854,000	737,324,000	268,298,000	81,313,000	29,132,000	52,181,000	0	0	0	2,296,000	51,287,000	0	51,287,000	996,082,000	9,462,000	0	0
06/30/2033	20.525%	0	518,698,000	810,302,000	272,777,000	81,606,000	27,716,000	53,890,000	0	0	0	2,119,000	46,683,000	0	46,683,000	1,017,607,000	8,471,000	0	0
06/30/2034	20.525%	0	469,612,000	884,921,000	278,018,000	81,722,000	26,289,000	55,433,000	0	0	0	1,807,000	42,265,000	0	42,265,000	1,035,578,000	7,525,000	0	0
06/30/2035	20.525%	0	423,146,000	959,919,000	283,874,000	81,614,000	24,850,000	56,764,000	0	0	0	1,602,000	38,083,000	0	38,083,000	1,049,496,000	6,641,000	0	0
06/30/2036	20.525%	0	379,447,000	1,035,694,000	290,458,000	81,311,000	23,403,000	57,908,000	0	0	0	1,463,000	34,150,000	0	34,150,000	1,059,324,000	5,820,000	0	0
06/30/2037	20.525%	0	338,458,000	1,111,816,000	297,669,000	80,802,000	21,952,000	58,850,000	0	0	0	1,403,000	30,461,000	0	30,461,000	1,064,971,000	5,065,000	0	0
06/30/2038	20.525%	0	299,938,000	1,188,396,000	305,481,000	80,115,000	20,500,000	59,615,000	0	0	0	1,293,000	26,994,000	0	26,994,000	1,066,878,000	4,374,000	0	0
06/30/2039	20.525%	0	262,948,000	1,265,147,000	313,642,000	79,236,000	19,052,000	60,184,000	0	0	0	1,245,000	23,665,000	0	23,665,000	1,065,883,000	3,735,000	0	0
06/30/2040	20.525%	0	227,340,000	1,343,160,000	322,345,000	78,243,000	17,614,000	60,629,000	0	0	0	1,109,000	20,461,000	0	20,461,000	1,062,131,000	3,142,000	0	0
06/30/2041	20.525%	0	193,578,000	1,421,153,000	331,424,000	76,191,000	16,191,000	60,893,000	0	0	0	812,000	17,422,000	0	17,422,000	1,055,318,000	2,602,000	0	0
06/30/2042	20.525%	0	159,696,000	1,499,028,000	340,453,000	75,775,000	14,790,000	60,985,000	0	0	0	630,000	14,373,000	0	14,373,000	1,046,834,000	2,090,000	0	0
06/30/2043	20.525%	0	124,935,000	1,579,500,000	349,835,000	74,464,000	13,421,000	61,043,000	0	0	0	375,000	11,244,000	0	11,244,000	1,037,458,000	1,591,000	0	0
06/30/2044	20.525%	0	93,870,000	1,660,757,000	360,137,000	73,077,000	12,090,000	60,987,000	0	0	0	189,000	8,448,000	0	8,448,000	1,023,840,000	1,161,000	0	0

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION III - GASB 67 ACCOUNTING INFORMATION

B. Net Pension Liability

Net Pension Liability	<u>June 30, 2014</u>
Total pension liability	\$14,807,702,914
Fiduciary net position	1,703,779,000
Net pension liability	13,103,923,914
Fiduciary net position as a % of total pension liability	11.51%
Covered payroll	\$1,171,153,830
Net pension liability as a % of covered payroll	1118.89%

The total pension liability was determined by an actuarial valuation as of July 1, 2013, calculated based on the discount rate and actuarial assumptions as shown in Section VIII and was then projected forward to June 30, 2014. There have been significant changes between the valuation date of July 1, 2013 and the fiscal year end. Any significant changes during this period must be reflected as prescribed by GASB 67. Covered Payroll is as of July 1, 2013.

Discount Rate

The plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current active and inactive members. Therefore, the discount rate for calculating the total pension liability is equal to the single equivalent rate that results in the same actuarial present value as the long-term expected rate of return applied to benefit payments, to the extent that the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, and the municipal bond rate applied to benefit payments, to the extent that the plan's fiduciary net position is not projected to be sufficient.

	<u>June 30, 2013</u>	<u>June 30, 2014</u>
Discount rate	4.66%	4.33%
Long-term expected rate of return net of investment expense	6.25%	6.65%
Municipal bond rate *	4.63%	4.29%

* Bond Buyer General Obligation 20-Bond Municipal Bond Index

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION III - GASB 67 ACCOUNTING INFORMATION

C. GASB 67 Benefit Obligations as of June 30, 2014

	<u>Basic System Benefits</u>	<u>System Administered Benefits</u>	<u>Total</u>
1. Projected Benefits Payable to Retirees and Beneficiaries			
Retirees	\$8,409,469,668	\$357,688,782	\$8,767,158,450
Disabled Members	173,267,919	24,021,976	197,289,895
Beneficiaries	<u>141,715,245</u>	<u>8,775,933</u>	<u>150,491,178</u>
Total	8,724,452,832	390,486,691	9,114,939,523
2. Projected Benefits Payable to Vested Terminated Members	69,840,181	812,151	70,652,332
3. Actuarial Accrued Liability for Active Members	5,594,813,774	5,333,772	5,600,147,546
4. Refund of Contributions due to former members	21,963,513	0	21,963,513
5. Total Pension Liability as of June 30, 2014:			
(1) + (2) + (3) + (4)	\$14,411,070,300	\$396,632,614	\$14,807,702,914

The above liabilities are for Basic System Benefits and selected System Administered Benefits. See Section I for more information.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION III - GASB 67 ACCOUNTING INFORMATION

D. Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2013	\$14,792,649,435	\$1,906,882,000	\$12,885,767,435
Changes for the year:			
Service cost	354,158,608		354,158,608
Interest on total pension liability	690,741,962		690,741,962
Effect of plan changes	(599,559,987)		(599,559,987)
Effect of economic/demographic (gains) or losses	169,850,754		169,850,754
Effect of assumptions changes or inputs	83,560,142		83,560,142
Benefit payments	(683,698,000)	(683,698,000)	0
Administrative expenses		(19,803,000)	19,803,000
Member contributions		115,461,000	(115,461,000)
Net investment income		191,439,000	(191,439,000)
Employer contributions and transfers		193,498,000	(193,498,000)
Balances as of June 30, 2014	\$14,807,702,914	\$1,703,779,000	\$13,103,923,914

E. Sensitivity Analysis

The following presents the net pension liability of PRTRS, calculated using the discount rate of 4.33%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (3.33%) or 1 percentage point higher (5.33%) than the current rate.

	1% Decrease 3.33%	Current Discount Rate 4.33%	1% Increase 5.33%
Total pension liability	\$16,877,180,394	\$14,807,702,914	\$13,100,322,786
Fiduciary net position	1,703,779,000	1,703,779,000	1,703,779,000
Net pension liability	15,173,401,394	13,103,923,914	11,396,543,786

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IV – MANAGEMENT INFORMATION

A. Projection to Determine Annual Additional Contribution

The projection to determine the Annual Additional Contribution (“AAC”) for fiscal year 2018-2019 through 2041-2042 was determined on a deterministic basis and reflects the following:

- Projected investment income is based on the June 30, 2014 investment return assumption of 6.65% per year.
- All demographic assumptions are assumed to be met in future years (i.e. – no gains or losses from demographic sources are expected to occur).
- Employer contributions in each future year are calculated based on the statutory payroll-based employer contribution rate as applied to the projected future payroll.
- This projection assumed that the additional contributions defined in Article 1.1 of 160-2013 will be paid when due.
- This projection reflects 2,210 actual retirements from active status during 2013-2014 in the census data, decreasing the active membership from 41,553 as of July 1, 2013 to 39,343. In determining projected employer contributions, the active membership was then assumed to further decrease to 37,000 and to remain at that lower level throughout the projection period (i.e. – members who leave are replaced, but no net new hiring occurs).
- The new entrant cohort used for projection purposes is based on members hired between June 30, 2012 and June 30, 2013. Salaries for future new entrant cohorts were assumed to remain level through June 30, 2017 due to Act 66-2014 and then to increase 2.5% per year thereafter.
- Administrative expenses were assumed to remain level.
- While the projection assumes that the additional contributions are paid at the end of the fiscal year, the estimated AAC amount was determined assuming that the additional contributions for a fiscal year would be accelerated as necessary during the fiscal year to prevent asset exhaustion within that fiscal year.

Based on the methodology and inputs discussed above, the projected Annual Additional Contribution for Fiscal Year 2018-2019 is \$450.1 million, payable at the end of the fiscal year.

As seen on the chart at the end of this subsection, the AAC of \$450.1 million payable from Fiscal Year 2018-2019 to 2041-2042, in conjunction with the Teacher’s Justice Uniform Contribution payable from Fiscal Year 2016-2017 to 2041-2042, is projected on a deterministic basis to prevent a decrease in assets below \$300 million in any future

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IV – MANAGEMENT INFORMATION

year (as seen on the following chart, assets initially decrease in the period after the additional contributions cease, with a minimum projected asset value occurring at the end of Fiscal Year 2053-2054).

Illiquid Assets

As of June 30, 2014, PRTRS had approximately \$450 million in illiquid assets, comprised primarily of loans to System members. This projection assumes that these illiquid assets will be converted to liquid assets when needed. Note that the projection indicates that assets are expected to fall below \$450 million during fiscal year 2017-2018, one fiscal year before the first AAC contribution is due.

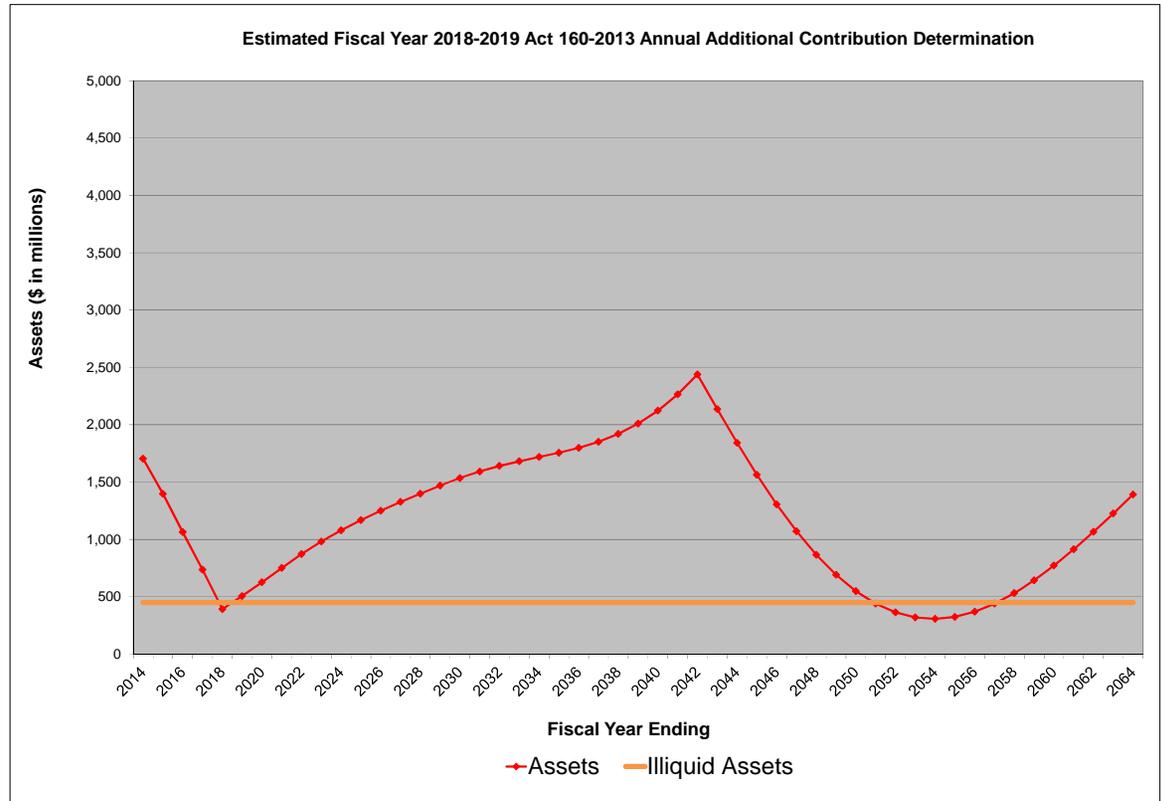
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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IV – MANAGEMENT INFORMATION

Puerto Rico Teachers Retirement System - Cash Flow Projection Based on Results of June 30, 2014 Actuarial Valuation

INPUT ITEMS					
Fiscal Period		Investment Return	Employer Contribution Rate	External Funding Sources (\$ millions)	Illiquid Asset Balance at Year-End (\$ millions)
July 1 to	June 30				
2014	2015	6.65%	12.500%	0.0	450
2015	2016	6.65%	13.500%	0.0	450
2016	2017	6.65%	14.750%	30.0	450
2017	2018	6.65%	16.000%	30.0	450
2018	2019	6.65%	17.250%	510.1	450
2019	2020	6.65%	18.500%	510.1	450
2020	2021	6.65%	19.750%	510.1	450
2021	2022	6.65%	20.525%	510.1	450
2022	2023	6.65%	20.525%	510.1	450
2023	2024	6.65%	20.525%	510.1	450
2024	2025	6.65%	20.525%	510.1	450
2025	2026	6.65%	20.525%	510.1	450
2026	2027	6.65%	20.525%	510.1	450
2027	2028	6.65%	20.525%	510.1	450
2028	2029	6.65%	20.525%	510.1	450
2029	2030	6.65%	20.525%	510.1	450
2030	2031	6.65%	20.525%	510.1	450
2031	2032	6.65%	20.525%	510.1	450
2032	2033	6.65%	20.525%	510.1	450
2033	2034	6.65%	20.525%	510.1	450
2034	2035	6.65%	20.525%	510.1	450
2035	2036	6.65%	20.525%	510.1	450
2036	2037	6.65%	20.525%	510.1	450
2037	2038	6.65%	20.525%	510.1	450
2038	2039	6.65%	20.525%	510.1	450
2039	2040	6.65%	20.525%	510.1	450
2040	2041	6.65%	20.525%	510.1	450
2041	2042	6.65%	20.525%	510.1	450
2042	2043	6.65%	20.525%	0.0	450
2043	2044	6.65%	20.525%	0.0	450
2044	2045	6.65%	20.525%	0.0	450
2045	2046	6.65%	20.525%	0.0	450
2046	2047	6.65%	20.525%	0.0	450
2047	2048	6.65%	20.525%	0.0	450
2048	2049	6.65%	20.525%	0.0	450
2049	2050	6.65%	20.525%	0.0	450
2050	2051	6.65%	20.525%	0.0	450
2051	2052	6.65%	20.525%	0.0	450
2052	2053	6.65%	20.525%	0.0	450
2053	2054	6.65%	20.525%	0.0	450
2054	2055	6.65%	20.525%	0.0	450
2055	2056	6.65%	20.525%	0.0	450
2056	2057	6.65%	20.525%	0.0	450
2057	2058	6.65%	20.525%	0.0	450
2058	2059	6.65%	20.525%	0.0	450
2059	2060	6.65%	20.525%	0.0	450
2060	2061	6.65%	20.525%	0.0	450
2061	2062	6.65%	20.525%	0.0	450
2062	2063	6.65%	20.525%	0.0	450
2063	2064	6.65%	20.525%	0.0	450



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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IV – MANAGEMENT INFORMATION

B. Alternate Projection to Determine GASB 67 Date of Depletion (if any)

This alternate date of depletion projection was performed on the same basis as the projection shown in Subsection A of Section III, with the exception that the additional contributions under Article 1.1 of Act 160-2013 are assumed to be made. The Annual Additional Contribution payable from fiscal year 2018-2019 through 2041-2042 is the amount determined in Subsection A above of \$450.1 million.

As shown below the end of this subsection, System assets are expected to be exhausted in 2037-2038 under this alternate GASB 67 projection basis.

Accordingly, based on the projected 2037-2038 year of depletion, the investment return of 6.65% per year as of June 30, 2014, and the municipal bond index of 4.29% as of June 30, 2014, the single equivalent interest rate as of June 30, 2014 was determined to be 5.24%. This single equivalent interest rate yields the same present value of all future benefits as using the expected return on plan assets until the 2036-2037 fiscal year and the tax-free municipal bond index beginning with the 2037-2038 fiscal year for the discount rate.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IV – MANAGEMENT INFORMATION

Alternate GASB 67 Projection as of June 30, 2014 to determine Date of Depletion (if any) With Additional Contributions

Fiscal Year Ending	Employer Contribution Rate	Beginning of Year Assets	Estimated Payroll for Members Active as of the Valuation Date	Estimated Payroll for Members Hired After the Valuation Date	Estimated Employer Payroll Based Contribution	Estimated Gross Employer Contribution (per Act 160-4.9(b))	Estimated Special 'Bonus' Benefits paid from Employer Supplemental Contribution	Estimated Net Employer Supplemental Contribution (per Act 160-4.9(b))	Estimated Teacher's Justice Uniform Contribution (assumed paid end of year)	Estimated Annual Additional Contribution (assumed paid end of year)	Estimated Act 70-2010 Contribution	Estimated Employer Contribution per Act 160-2013 Section 4.4(d)	Estimated Contribution from Members hired before August 2014 Active as of the Valuation Date	Estimated Contribution from Members hired after July 2014 Active as of the Valuation Date	Estimated Contribution from All Members Active as of the Valuation Date	Estimated Benefit Payments to Retired and Active Members as of the Valuation Date	Estimated Administrative Expenses for Retired and Active Members as of the Valuation Date	Estimated Investment Income	End of Year Assets
06/30/2015	12.500%	1,703,779,000	1,124,756,000	0	140,595,000	68,709,000	49,671,000	19,038,000	0	0	304,000	3,876,000	101,228,000	0	101,228,000	650,113,000	21,705,000	99,994,000	1,396,995,000
06/30/2016	13.500%	1,396,995,000	1,090,652,000	0	147,238,000	69,394,000	49,107,000	20,287,000	0	0	323,000	3,048,000	98,159,000	0	98,159,000	659,747,000	21,705,000	79,409,000	1,064,006,000
06/30/2017	14.750%	1,064,006,000	1,052,795,000	17,720,000	157,901,000	70,184,000	48,058,000	22,126,000	30,000,000	0	340,000	2,642,000	94,752,000	0	94,752,000	672,384,000	21,346,000	57,148,000	735,185,000
06/30/2018	16.000%	735,185,000	1,043,137,000	43,492,000	173,861,000	71,065,000	46,977,000	24,088,000	30,000,000	0	352,000	2,411,000	93,882,000	0	93,882,000	687,917,000	20,836,000	35,341,000	386,367,000
06/30/2019	17.250%	386,367,000	1,028,068,000	73,133,000	189,957,000	71,995,000	45,864,000	26,131,000	60,000,000	450,100,000	374,000	2,124,000	92,526,000	0	92,526,000	705,627,000	20,264,000	12,124,000	493,813,000
06/30/2020	18.500%	493,813,000	1,006,016,000	106,902,000	205,890,000	73,032,000	44,719,000	28,313,000	60,000,000	450,100,000	387,000	2,119,000	90,541,000	0	90,541,000	727,238,000	19,220,000	19,111,000	603,415,000
06/30/2021	19.750%	603,415,000	977,522,000	146,532,000	222,001,000	74,266,000	43,544,000	30,722,000	60,000,000	450,100,000	368,000	1,980,000	87,977,000	0	87,977,000	752,470,000	18,876,000	26,115,000	711,333,000
06/30/2022	20.525%	711,333,000	945,239,000	189,885,000	232,984,000	75,522,000	42,342,000	33,180,000	60,000,000	450,100,000	279,000	1,849,000	85,071,000	0	85,071,000	779,330,000	18,074,000	32,777,000	810,170,000
06/30/2023	20.525%	810,170,000	910,810,000	236,324,000	235,449,000	76,740,000	41,115,000	35,625,000	60,000,000	450,100,000	207,000	1,759,000	81,973,000	0	81,973,000	806,340,000	17,233,000	38,547,000	890,257,000
06/30/2024	20.525%	890,257,000	875,962,000	284,934,000	238,274,000	77,841,000	39,864,000	37,977,000	60,000,000	450,100,000	191,000	1,578,000	78,837,000	0	78,837,000	832,315,000	16,378,000	43,112,000	951,634,000
06/30/2025	20.525%	951,634,000	841,658,000	334,718,000	241,451,000	78,738,000	38,588,000	40,150,000	60,000,000	450,100,000	172,000	1,466,000	75,749,000	0	75,749,000	856,021,000	15,529,000	46,515,000	995,687,000
06/30/2026	20.525%	995,687,000	807,481,000	385,699,000	244,900,000	79,440,000	37,292,000	42,148,000	60,000,000	450,100,000	91,000	1,459,000	72,673,000	0	72,673,000	877,938,000	14,689,000	48,830,000	1,023,261,000
06/30/2027	20.525%	1,023,261,000	772,885,000	438,305,000	248,597,000	79,988,000	35,977,000	44,011,000	60,000,000	450,100,000	58,000	1,586,000	69,560,000	0	69,560,000	898,268,000	13,850,000	50,108,000	1,032,122,000
06/30/2028	20.525%	1,035,122,000	738,426,000	492,763,000	252,701,000	80,413,000	34,642,000	45,771,000	60,000,000	450,100,000	6,000	1,582,000	66,458,000	0	66,458,000	917,007,000	13,018,000	50,401,000	1,032,117,000
06/30/2029	20.525%	1,032,117,000	703,570,000	548,187,000	256,923,000	80,645,000	33,290,000	47,355,000	60,000,000	450,100,000	0	1,773,000	63,321,000	0	63,321,000	934,136,000	12,200,000	49,716,000	1,015,015,000
06/30/2030	20.525%	1,015,015,000	664,512,000	605,973,000	260,767,000	80,794,000	31,920,000	48,874,000	60,000,000	450,100,000	0	1,999,000	59,806,000	0	59,806,000	952,608,000	11,353,000	48,114,000	980,715,000
06/30/2031	20.525%	980,715,000	619,514,000	669,147,000	264,498,000	81,031,000	30,533,000	50,498,000	60,000,000	450,100,000	0	2,202,000	55,756,000	0	55,756,000	973,624,000	10,435,000	45,225,000	924,936,000
06/30/2032	20.525%	924,936,000	569,854,000	737,324,000	268,298,000	81,313,000	29,132,000	52,181,000	60,000,000	450,100,000	0	2,296,000	51,287,000	0	51,287,000	996,082,000	9,462,000	40,849,000	844,403,000
06/30/2033	20.525%	844,403,000	518,698,000	810,302,000	272,777,000	81,806,000	27,716,000	53,890,000	60,000,000	450,100,000	0	2,119,000	46,683,000	0	46,683,000	1,017,607,000	8,471,000	34,888,000	738,761,000
06/30/2034	20.525%	738,761,000	469,612,000	884,921,000	278,018,000	81,722,000	26,289,000	55,433,000	60,000,000	450,100,000	0	1,807,000	42,265,000	0	42,265,000	1,035,578,000	7,525,000	27,353,000	610,634,000
06/30/2035	20.525%	610,634,000	423,146,000	959,919,000	283,874,000	81,614,000	24,850,000	56,764,000	60,000,000	450,100,000	0	1,602,000	38,083,000	0	38,083,000	1,049,496,000	6,641,000	18,498,000	463,420,000
06/30/2036	20.525%	463,420,000	379,447,000	1,035,694,000	290,458,000	81,311,000	23,403,000	57,908,000	60,000,000	450,100,000	0	1,463,000	34,150,000	0	34,150,000	1,059,324,000	5,820,000	8,533,000	300,887,000
06/30/2037	20.525%	300,887,000	338,458,000	1,111,816,000	297,669,000	80,802,000	21,952,000	58,850,000	60,000,000	450,100,000	0	1,403,000	30,461,000	0	30,461,000	1,064,971,000	5,065,000	0	129,333,000
06/30/2038	20.525%	129,333,000	299,938,000	1,188,396,000	305,481,000	80,115,000	20,500,000	59,615,000	60,000,000	450,100,000	0	1,293,000	26,994,000	0	26,994,000	1,066,878,000	4,374,000	0	0
06/30/2039	20.525%	0	262,948,000	1,265,147,000	313,642,000	79,236,000	19,052,000	60,184,000	60,000,000	450,100,000	0	1,245,000	23,665,000	0	23,665,000	1,065,893,000	3,735,000	0	0
06/30/2040	20.525%	0	227,340,000	1,343,160,000	322,345,000	78,243,000	17,614,000	60,629,000	60,000,000	450,100,000	0	1,109,000	20,461,000	0	20,461,000	1,062,131,000	3,142,000	0	0
06/30/2041	20.525%	0	193,578,000	1,421,153,000	331,424,000	77,084,000	16,191,000	60,893,000	60,000,000	450,100,000	0	812,000	17,422,000	0	17,422,000	1,055,318,000	2,602,000	0	0
06/30/2042	20.525%	0	159,896,000	1,499,028,000	340,453,000	75,775,000	14,790,000	60,985,000	60,000,000	450,100,000	0	630,000	14,373,000	0	14,373,000	1,046,834,000	2,090,000	0	0
06/30/2043	20.525%	0	124,935,000	1,579,500,000	349,835,000	74,464,000	13,421,000	61,043,000	0	0	0	375,000	11,244,000	0	11,244,000	1,037,458,000	1,591,000	0	0
06/30/2044	20.525%	0	93,870,000	1,660,757,000	360,137,000	73,077,000	12,090,000	60,987,000	0	0	0	189,000	8,448,000	0	8,448,000	1,023,840,000	1,161,000	0	0

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION V - GASB 25 AND 27 ACCOUNTING INFORMATION

A. Development of Net Pension Obligation as of June 30, 2014

1. Net Pension Obligation as of June 30, 2013	\$3,026,894,672
2. Annual Pension Cost for Fiscal Year 2013 - 2014	759,532,018
3. Fiscal Year 2013 - 2014 Employer Contribution	189,367,000
4. Net Pension Obligation as of June 30, 2014: (1) + (2) - (3)	\$3,597,059,690

B. Schedule of Employer Contributions

<u>Year Ended June 30</u>	<u>Actual Employer Contribution</u>	<u>Annual Required Contribution</u>	<u>Percent Contributed</u>
2014 *	\$189,367,000	\$748,569,490	25.30%
2013	187,444,000	736,590,722	25.45
2012	176,970,000	659,334,354	26.84
2011	159,754,000	528,169,741	30.25
2010	164,650,000	477,213,279	34.50
2009	171,331,000	393,871,256	43.50
2008	156,835,000	341,495,050	45.93

* For the fiscal year ending June 30, 2014, the Actual Employer Contribution for Basic System Benefits was \$139,453,000 and for System Administered Benefits was \$49,914,000. The Annual Required Contribution for Basic System Benefits was \$710,313,482 and for System Administered Benefits was \$38,256,008.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

A. Benefit Obligations

1. Projected Benefits Payable to Retirees and Beneficiaries	
Retirees	\$490,978,610
Disabled Members	28,976,321
Beneficiaries	<u>0</u>
Total	519,954,931
2. Projected Benefits Payable to Vested Terminated Members	1,706,624
2. Actuarial Accrued Liability for Active Members	21,543,550
3. Actuarial Accrued Liability as of June 30, 2014	543,205,105
4. Total Employer Normal Cost as of December 31, 2014	0

The above liabilities are for the Medical Insurance Plan Contribution portion of the System Administered Benefits. See Section I for more information.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

B. Development of Unfunded Accrued Liability and Amortization Payment Payable as of December 31, 2014

1. Actuarial Accrued Liability as of June 30, 2014	\$543,205,105
2. Actuarial Value of Assets as of June 30, 2014	0
3. Unfunded Actuarial Accrued Liability as of June 30, 2014: (1) - (2)	543,205,105
4. Amortization Period in years	20
5. Amortization Factor at beginning of year	15.1978
6. Amortization Amount Payable as of December 31, 2014: [(3) / (5)] * (1.0310 ^ 0.5)	\$36,292,129

C. Development of Annual Required Contribution

1. Total Employer Normal Cost as of December 31, 2014	\$0
2. Amortization Payment as of December 31, 2014	36,292,129
3. Annual Required Contribution*: (1) + (2)	36,292,129

* Assumes payments made throughout the year.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

D. Development of Net OPEB Obligation as of June 30, 2014

1. Net OPEB Obligation as of June 30, 2013	\$53,667,931
2. Annual OPEB Cost for Fiscal Year 2013 - 2014	45,901,955
3. Fiscal Year 2013 - 2014 Employer Contribution	35,892,000
4. Net OPEB Obligation as of June 30, 2014: (1) + (2) - (3)	\$63,677,886

E. Development of Fiscal Year 2014 - 2015 Annual OPEB Cost

1. Annual Required Contribution	\$36,292,129
2. Interest on Net OPEB Obligation as of June 30, 2014	1,974,014
3. Adjustment to the Annual Required Contribution	4,319,829
4. Fiscal Year 2014 - 2015 Annual OPEB Cost: (1) + (2) - (3)	\$33,946,314

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

F. Schedule of Employer Contributions

<u>Year Ended June 30</u>	<u>Actual Employer Contribution</u>	<u>Annual Required Contribution</u>	<u>Percent Contributed</u>	<u>Annual OPEB Cost</u>	<u>Percent Contributed</u>
2015	\$38,114,000	\$36,292,129	105.02%*	\$33,946,314	112.28%*
2014	35,892,000	46,402,944	77.35	45,901,955	78.19
2013	34,239,000	45,668,532	74.97	45,333,986	75.53
2012	34,471,000	41,068,597	83.94	40,980,028	84.12
2011	33,432,000	39,925,237	83.74	39,896,228	83.80
2010	30,161,000	42,487,047	70.99	42,493,786	70.98
2009	29,333,000	38,015,446	77.16	38,029,724	77.13

* Percentage contributed for the year ended June 30, 2015 assumes the actual employer contribution is the expected pay-as-you-go amounts for the Medical Insurance Plan Contribution.

The above liabilities are for the Medical Insurance Plan Contribution portion of the System Administered Benefits. See Section I for more information.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

G. Schedule of Funding Progress

	(a)	(b)	(c)=(b)-(a)	(d)=(a)/(b)	(e)	(f)=(c)/(e)
Actuarial Valuation <u>Date</u>	Actuarial Value of <u>Assets</u>	Accrued <u>Liability</u>	Unfunded <u>Liability</u>	Funded <u>Ratio</u>	Annual <u>Salary</u>	Unfunded Liability as a % of Annual <u>Salary</u>
06/30/2014	\$0	\$543,205,105	\$543,205,105	0.0%	1,171,153,830	46.4%
06/30/2013	0	792,875,089	792,875,089	0.0%	1,248,674,490	63.5%
06/30/2012	0	797,332,237	797,332,237	0.0%	1,292,974,899	61.7%
06/30/2011	0	706,068,965	706,068,965	0.0%	1,320,399,637	53.5%
06/30/2010	0	694,229,882	694,229,882	0.0%	1,370,343,618	50.7%
06/30/2009	0	750,381,890	750,381,890	0.0%	1,418,304,104	52.9%

The above liabilities are for the Medical Insurance Plan Contribution portion of the System Administered Benefits. See Section I for more information.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VI - GASB 45 ACCOUNTING INFORMATION

H. Additional Information

The following information was used to determine the Annual Required Contribution for the fiscal year ending June 30, 2015. The ARC is for the Medical Insurance Plan Contribution. See Section I for more information.

Valuation Date:	June 30, 2014
Actuarial Cost Method:	Entry Age Normal
Amortization method:	20 years closed (beginning July 1, 2014), level dollar
Remaining Amortization Period:	20 years
Asset valuation method:	Market Value of Assets
Assumptions:	
Investment rate of return	3.10%
Projected Salary Increases	not applicable
Payroll growth	not applicable
Inflation	not applicable
Cost of Living Adjustments	not applicable

Amortization method changed due to Act 160-2013. See page 7 for more information.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

A. Reconciliation with Prior Valuation

	<u>Active</u>	<u>Terminated Vested</u>	<u>Retirees, Disabled Members, and Beneficiaries</u>	<u>Total</u>
Members as of July 1, 2012	42,707	738	36,505	79,950
Changes				
Terminated Vested	(143)	143	0	0
Retired & Disabled	(2,340)	(54)	2,394	0
Death	(42)	(4)	(827)	(873)
Disappeared	(578)	0	(26)	(604)
Return/Transfer of Contributions	(227)	(58)	0	(285)
Return to Active	673	(67)	(3)	603
New	1,503	0	324	1,827
Members as of July 1, 2013	41,553	698	38,367	80,618
Adjustment for 2013-2014 retirements	(2,210)	(9)	2,234	15
Adjusted Members as of July 1, 2013	39,343 ¹	689	40,601	80,633

¹ Includes 206 members on leave of absence without pay who are assumed not to earn additional benefits.

The liability for the Return of Contributions due to former Members was provided by the System and equals the accumulated contributions with interest as of July 1, 2014 for former participants who terminated employment by July 1, 2014 with less than ten years of service and have not received a return of contributions as of July 1, 2014.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

B. Summary of Active Members as of July 1, 2013

Number of Male Participants by Age and Service Groups

Age	Years of Credited Service										Total	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	25	3	-	-	-	-	-	-	-	-	-	28
25-29	127	316	46	-	-	-	-	-	-	-	-	489
30-34	81	284	416	94	-	-	-	-	-	-	-	875
35-39	44	153	278	660	35	1	-	-	-	-	-	1,171
40-44	24	85	174	407	352	74	-	-	-	-	-	1,116
45-49	24	58	138	235	293	646	62	-	-	-	-	1,456
50-54	21	48	100	171	209	536	468	13	1	-	-	1,567
55-59	10	34	72	104	144	218	211	28	8	-	-	829
60-64	5	10	34	47	50	67	60	5	10	1	1	289
65-69	5	5	5	13	6	26	10	1	2	2	2	75
70&Up	2	4	3	3	5	4	6	1	1	1	2	31
Total	368	1,000	1,266	1,734	1,094	1,572	817	48	22	5	5	7,926

Average Compensation of Male Participants by Age and Service Groups

Age	Years of Credited Service										Average	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	20,730	21,480	-	-	-	-	-	-	-	-	-	20,810
25-29	20,993	21,682	22,365	-	-	-	-	-	-	-	-	21,567
30-34	21,044	21,547	23,831	28,728	-	-	-	-	-	-	-	23,358
35-39	22,070	21,743	24,641	30,901	33,057	28,200	-	-	-	-	-	27,949
40-44	22,606	24,606	26,229	31,434	33,956	34,672	-	-	-	-	-	30,923
45-49	24,830	22,997	25,760	30,744	33,458	34,637	36,292	-	-	-	-	32,375
50-54	26,297	23,898	26,256	30,327	33,384	34,355	35,380	37,012	32,532	-	-	33,168
55-59	22,212	22,732	25,787	29,994	32,874	34,376	35,191	35,493	35,068	-	-	32,447
60-64	23,568	24,301	26,336	29,457	33,558	34,768	33,962	35,688	40,038	44,640	-	32,212
65-69	23,570	23,323	27,031	30,469	34,436	34,658	33,655	33,876	39,708	35,508	-	31,924
70&Up	21,420	22,440	18,180	28,816	32,138	35,415	36,176	33,360	32,148	37,350	-	30,103
Average	21,879	22,157	24,865	30,730	33,518	34,510	35,281	35,846	37,501	38,071	-	29,959

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

B. Summary of Active Members as of July 1, 2013

Number of Female Participants by Age and Service Groups

Age	Years of Credited Service										Total	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	109	32	-	-	-	-	-	-	-	-	-	141
25-29	528	1,429	239	1	-	-	-	-	-	-	-	2,197
30-34	353	1,215	1,599	349	5	-	-	-	-	-	-	3,521
35-39	211	662	1,067	2,404	124	4	-	-	-	-	-	4,472
40-44	154	441	743	1,712	1,292	284	2	-	-	-	-	4,628
45-49	95	315	571	1,253	1,191	2,612	368	2	-	-	-	6,407
50-54	51	180	392	819	773	1,990	1,691	71	-	-	-	5,967
55-59	32	80	190	448	471	850	627	106	18	-	-	2,822
60-64	10	28	73	135	149	256	181	35	34	10	-	911
65-69	3	11	21	27	46	68	59	11	5	19	-	270
70&Up	3	1	3	17	4	15	16	5	3	14	-	81
Total	1,549	4,394	4,898	7,165	4,055	6,079	2,944	230	60	43	-	31,417

Average Compensation of Female Participants by Age and Service Groups

Age	Years of Credited Service										Average	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	20,995	21,412	-	-	-	-	-	-	-	-	-	21,090
25-29	21,168	21,717	22,393	23,310	-	-	-	-	-	-	-	21,659
30-34	21,228	21,763	23,944	28,988	25,200	-	-	-	-	-	-	23,421
35-39	21,736	21,894	24,413	31,020	33,303	29,902	-	-	-	-	-	27,717
40-44	22,529	22,269	25,062	31,260	33,943	34,695	36,990	-	-	-	-	30,080
45-49	22,660	22,322	25,541	30,894	33,362	34,744	35,839	30,660	-	-	-	32,186
50-54	22,952	22,493	25,783	30,880	33,396	34,439	35,401	36,769	-	-	-	33,089
55-59	25,881	22,315	25,772	30,268	33,277	34,206	35,127	36,589	39,792	-	-	32,756
60-64	26,821	24,947	25,373	30,181	33,011	34,175	34,561	38,004	37,255	33,396	-	32,653
65-69	25,632	22,428	26,184	30,666	32,184	34,275	35,924	37,167	42,530	38,368	-	33,269
70&Up	23,704	21,300	30,672	30,986	31,374	34,146	35,300	35,208	30,260	36,921	-	33,301
Average	21,680	21,918	24,579	30,875	33,504	34,533	35,357	36,806	38,106	36,741	-	29,720

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

B. Summary of Active Members as of July 1, 2013

Number of All Active Participants by Age and Service Groups

Age	Years of Credited Service										Total	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	134	35	-	-	-	-	-	-	-	-	-	169
25-29	655	1,745	285	1	-	-	-	-	-	-	-	2,686
30-34	434	1,499	2,015	443	5	-	-	-	-	-	-	4,396
35-39	255	815	1,345	3,064	159	5	-	-	-	-	-	5,643
40-44	178	526	917	2,119	1,644	358	2	-	-	-	-	5,744
45-49	119	373	709	1,488	1,484	3,258	430	2	-	-	-	7,863
50-54	72	228	492	990	982	2,526	2,159	84	1	-	-	7,534
55-59	42	114	262	552	615	1,068	838	134	26	-	-	3,651
60-64	15	38	107	182	199	323	241	40	44	11	-	1,200
65-69	8	16	26	40	52	94	69	12	7	21	-	345
70&Up	5	5	6	20	9	19	22	6	4	16	-	112
Total	1,917	5,394	6,164	8,899	5,149	7,651	3,761	278	82	48	-	39,343

Average Compensation of All Active Participants by Age and Service Groups

Age	Years of Credited Service										Average	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	20,946	21,418	-	-	-	-	-	-	-	-	-	21,044
25-29	21,134	21,711	22,388	23,310	-	-	-	-	-	-	-	21,643
30-34	21,193	21,722	23,920	28,933	25,200	-	-	-	-	-	-	23,408
35-39	21,793	21,865	24,460	30,994	33,249	29,562	-	-	-	-	-	27,765
40-44	22,539	22,647	25,284	31,293	33,946	34,690	36,990	-	-	-	-	30,244
45-49	23,098	22,427	25,584	30,871	33,381	34,723	35,904	30,660	-	-	-	32,221
50-54	23,927	22,789	25,879	30,785	33,393	34,421	35,396	36,807	32,532	-	-	33,105
55-59	25,007	22,439	25,776	30,217	33,183	34,240	35,143	36,360	38,339	-	-	32,686
60-64	25,737	24,777	25,679	29,994	33,148	34,298	34,412	37,714	37,887	34,418	-	32,547
65-69	24,344	22,708	26,347	30,602	32,444	34,381	35,595	36,893	41,724	38,095	-	32,977
70&Up	22,790	22,212	24,426	30,661	31,799	34,413	35,539	34,900	30,732	36,975	-	32,416
Average	21,718	21,962	24,638	30,847	33,507	34,528	35,340	36,640	37,943	36,879	-	29,768

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

C. Summary of Terminated Vested Members as of July 1, 2013

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Count</u>	<u>Average Annual Pension Basic System Benefit</u>	<u>Count</u>	<u>Average Annual Pension Basic System Benefit</u>	<u>Count</u>	<u>Average Annual Pension Basic System Benefit</u>
Under 35	0	0	1	3,600	1	3,600
35-39	7	6,243	34	6,376	41	6,354
40-44	21	7,080	74	7,143	95	7,129
45-49	36	7,963	106	7,805	142	7,845
50-54	57	9,130	112	8,961	169	9,018
55-59	48	9,592	101	9,457	149	9,500
60-64	16	10,316	44	10,548	60	10,486
65 & Over	<u>8</u>	<u>7,285</u>	<u>24</u>	<u>11,191</u>	<u>32</u>	<u>10,215</u>
All Ages	193	8,721	496	8,604	689	8,637

The Average Annual Pension amounts above are as of July 1, 2013. The \$400 minimum monthly benefit is not reflected.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

D. Summary of Retirees as of July 1, 2013

Age	<u>Males</u> Average Annual Pension			<u>Females</u> Average Annual Pension			<u>Total</u> Average Annual Pension		
	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>
Under 45	2	34,115	34,115	11	15,546	15,546	13	18,402	18,402
45-49	10	19,095	19,095	32	17,079	17,079	42	17,545	17,545
50-54	193	25,025	25,029	926	24,504	24,510	1,119	24,594	24,599
55-59	1,062	25,563	25,567	4,611	24,759	24,766	5,673	24,910	24,916
60-64	1,666	21,562	21,692	6,521	20,859	21,028	8,187	21,002	21,163
65-69	1,520	18,279	18,801	5,173	17,269	17,832	6,693	17,498	18,052
70-74	1,091	15,356	16,355	3,599	13,950	14,963	4,690	14,277	15,287
75-79	867	12,417	13,892	2,711	11,371	12,818	3,578	11,625	13,078
80-84	739	10,107	12,027	1,968	9,709	11,401	2,707	9,818	11,572
85-89	336	9,400	11,216	1,376	8,621	10,270	1,712	8,774	10,455
90-94	114	8,472	9,927	550	8,170	9,652	664	8,222	9,699
95-99	23	8,224	9,409	136	8,013	9,410	159	8,043	9,410
100 & Over	<u>3</u>	<u>5,805</u>	<u>7,102</u>	<u>38</u>	<u>7,961</u>	<u>9,317</u>	<u>41</u>	<u>7,803</u>	<u>9,155</u>
All Ages	7,626	17,737	18,472	27,652	17,388	18,049	35,278	17,463	18,140

The Average Annual Pension amounts above are as of July 1, 2013. In addition, 1,479 retirees are currently paying annual additional contributions of \$4,422,281 (via a reduced monthly benefit which is not reflected above). The 64 Act 70-2010 retirees as of July 1, 2013 have initial monthly employer contributions totaling \$20,066 and the amounts above do not reflect the deferral of the benefits for these retirees.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

E. Summary of Disabled Members as of July 1, 2013

Age	<u>Males</u> Average Annual Pension			<u>Females</u> Average Annual Pension			<u>Total</u> Average Annual Pension		
	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>
Under 40	2	4,800	4,800	7	5,238	5,385	9	5,141	5,255
40-44	5	6,081	6,081	26	6,693	6,761	31	6,594	6,651
45-49	14	6,711	6,995	74	7,840	7,985	88	7,660	7,827
50-54	42	9,531	9,704	166	9,469	9,630	208	9,481	9,645
55-59	68	8,627	8,970	268	8,091	8,454	336	8,200	8,558
60-64	56	6,442	7,101	271	6,377	7,054	327	6,388	7,062
65-69	55	5,149	6,026	228	5,168	6,082	283	5,164	6,071
70-74	31	4,465	5,439	243	4,564	5,549	274	4,553	5,537
75-79	25	5,009	6,042	209	4,476	5,438	234	4,533	5,503
80-84	44	4,379	5,347	198	4,323	5,326	242	4,333	5,330
85-89	15	4,575	5,607	108	4,393	5,380	123	4,415	5,408
90-94	6	4,162	5,179	50	4,366	5,311	56	4,344	5,297
95-99	4	4,316	5,311	12	4,310	5,195	16	4,311	5,224
100 & Over	<u>2</u>	<u>8,582</u>	<u>9,094</u>	<u>6</u>	<u>4,284</u>	<u>5,344</u>	<u>8</u>	<u>5,358</u>	<u>6,281</u>
All Ages	369	6,367	7,030	1,866	5,953	6,671	2,235	6,021	6,730

The Average Annual Pension amounts above are as of July 1, 2013.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VII – CENSUS DATA

F. Summary of Beneficiaries as of July 1, 2013

<u>Age</u>	<u>Males</u> <u>Average Annual Pension</u>			<u>Females</u> <u>Average Annual Pension</u>			<u>Total</u> <u>Average Annual Pension</u>		
	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>	<u>Count</u>	<u>Basic System Benefit</u>	<u>Total Benefit</u>
Under 30	27	5,537	5,737	44	5,130	5,248	71	5,285	5,434
30-34	3	3,860	4,063	5	7,607	7,759	8	6,202	6,373
35-39	4	2,886	3,048	6	4,328	4,400	10	3,751	3,859
40-44	10	5,235	5,402	15	4,246	4,369	25	4,641	4,783
45-49	12	3,772	3,958	31	4,518	4,717	43	4,310	4,505
50-54	31	4,335	4,498	28	4,178	4,306	59	4,260	4,407
55-59	50	5,167	5,361	71	5,963	6,211	121	5,634	5,860
60-64	83	5,876	6,109	116	6,819	7,061	199	6,426	6,664
65-69	138	5,783	5,988	214	5,674	5,896	352	5,716	5,932
70-74	170	5,310	5,508	270	5,462	5,693	440	5,403	5,622
75-79	183	4,859	5,065	349	4,746	4,989	532	4,785	5,015
80-84	210	4,445	4,651	347	4,367	4,599	557	4,396	4,618
85-89	197	4,118	4,325	227	3,942	4,144	424	4,023	4,228
90 & Over	<u>120</u>	<u>3,804</u>	<u>3,997</u>	<u>127</u>	<u>3,589</u>	<u>3,762</u>	<u>247</u>	<u>3,694</u>	<u>3,876</u>
All Ages	1,238	4,799	5,003	1,850	4,884	5,104	3,088	4,850	5,064

The Average Annual Pension amounts above are as of July 1, 2013.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS **AS OF JUNE 30, 2014**

PRTRS was established in 1951. Act 160-2013 (enacted December 24, 2013) superseded Act 91-2004 (enacted March 29, 2004), which superseded Act 218-1951 (enacted May 6, 1951).

Two main sets of benefit provisions apply to various members of PRTRS depending on the member's date of hire as a result of Act 160-2013, as modified by the April 11, 2014 decision of the Puerto Rico Supreme Court.

- The first set of provisions applies to members hired on or before July 31, 2014. Distinctions for members who retired August 1, 2014 or later are noted throughout this first set of provisions as applicable.
- The second set of provisions applies to members hired August 1, 2014 or later.

This summary of plan provisions, with separate descriptions for the two sets of benefits and the employer contributions, is intended only to describe the essential features of the plan for valuation purposes. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself.

Provisions applicable to members hired on or before July 31, 2014

1. Type of Plan

A contributory, defined benefit pension plan.

2. Eligibility for Membership

Members of the Teacher's Retirement System of Puerto Rico include teachers hired by the Department of Education on or before July 31, 2014, retired teachers, licensed teachers working in private schools or other educational organizations who elect to become members on or before July 31, 2014, employees of the System hired before March 29, 2004 who elected to become members, and employees of the System hired on or after March 29, 2004 and on or before July 31, 2014 (Act 160-2013, Article 3.1).

3. Definitions

- a. Fiscal Year: A Fiscal Year is a 12-month period beginning on July 1 and ending on June 30.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

- b. Fund: System Contribution Fund (Act 160-2013, Article 4.1).
- c. General Fund: The General Expenses Budget of the Government of the Commonwealth of Puerto Rico.
- d. Creditable Service: The years and months of plan participation, during which contributions have been made, beginning on the date of the first original appointment for rendering services. For purposes of calculating Creditable Service, 15 calendar days of a school year month shall be equal to 1 calendar month worked during the school year for teachers; and 21 calendar days of a month shall be equal to 1 calendar month worked for other participants. (Act 160-2013, Article 3.8) Creditable Service also includes purchased service, if any (Act 160-2013, Articles 3.6 and 3.8).
- e. Compensation: The gross cash compensation, excluding bonuses and overtime, upon which contributions by a Member to the Fund are based (Act 160-2013, Article 1.1).
- f. Average Compensation: The average of the 36 highest months of compensation that the participant has received for Creditable Service (Act 160-2013, Article 1.1).
- g. Average Non-occupational Disability Compensation: The average of the 60 highest consecutive months of compensation that the participant has received. (Act 160-2013, Article 4.6).
- h. Average Occupational Disability Compensation: The average of the 60 highest consecutive months of compensation that the participant has received. If less than 60 months of creditable service, the average of the monthly compensation that the participant has received. (Act 160-2013, Article 4.6).
- i. Contributions: The amount deducted from the compensation of a Member or directly paid to the System (Act 160-2013, Article 1.1).
- j. Accumulated Contributions: The sum of all amounts deducted from the compensation of a Member or directly paid to the System, without interest.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS
AS OF JUNE 30, 2014

4. Retirement Benefits

a. Retirement because of age

Eligibility: Age 60 with 10 years of Creditable Service (Act 160-2013, Article 3.9).

Benefit: Members who retire because of age shall be entitled to a lifetime monthly income equal to 1.8% of Average Compensation multiplied by years of Creditable Service (Act 160-2013, Article 4.4). In no event will the benefit determined be less than the Minimum Benefit.

Additional Contributions required: None.

b. Retirement because of age and years of service

Eligibility: Age 47 with 25 years of Creditable Service (Act 160-2013, Article 3.9).

Benefit: Members who retire because of age and years of service shall be entitled to a lifetime monthly income based on age and years of Creditable Service as shown below (Act 160-2013, Article 4.4). In no event will the benefit determined below be less than the Minimum Benefit.

Attained Age	Years of Creditable Service	Lifetime Monthly Income
55	30	75% of Average Compensation
50	30	75% of Average Compensation
Under 50	30	65% of Average Compensation
50	25 but less than 30	1.8% of Average Compensation multiplied by years of Creditable Service
47 but less than 50	25 but less than 30	95% of 1.8% of Average Compensation multiplied by years of Creditable Service

Additional Contributions required: If a member retires at age 55 or older with at least 30 years of Creditable Service, no additional contributions are required. Members who retired before December 24, 2013 who have not attained age 55 and 30 years of Creditable Service at retirement must contribute to the Fund 9%

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

of the Average Compensation on a monthly basis for a minimum period of 5 years after retiring because of age and years of service. Current administrative practice requires contributions until attainment of both age 55 and the date when 30 years of Creditable Service would have been completed if employment had continued for members who retired before December 24, 2013. Members who retired on or after December 24, 2013 who have not attained age 55 and 30 years of Creditable Service at retirement must contribute to the Fund 9% of the Average Compensation on a monthly basis until attainment of age 55. The employer of each of these members shall continue making the corresponding employer contributions while the member is paying the 9% additional contribution until the age 55 requirement is met. (Act 160-2013, Article 4.4)

5. Termination Benefits

a. Lump Sum Withdrawal

Eligibility: A Member is eligible upon termination of service.

Benefit: For terminations occurring on or before July 31, 2014, the benefit equals a refund of Accumulated Contributions, plus compound interest accumulated at 2.0% per annum for a period no longer than 6 months following separation of service. (Act 160-2013, Article 3.4)

For termination occurring August 1, 2014 or later, if the member has less than 5 years of Creditable Service or the member has Accumulated Contributions with interest less than \$10,000, the benefit equals a refund of Accumulated Contributions, plus compound interest accumulated at 2.0% per annum for a period no longer than 6 months following separation of service. (Act 160-2013, Article 3.4)

For terminations occurring August 1, 2014 or later, members with 5 or more years of Creditable Service but less than 10 years, who have Accumulated Contributions with interest of \$10,000 or more, the benefit equals a refund of Accumulated Contributions, plus corresponding interest, payable no earlier than age 60. (Act 160-2013, Article 3.4)

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

b. Deferred Retirement

Eligibility: A Member is eligible upon termination of service prior to age 60 and after 10 years of Creditable Service, provided the member has not taken a lump sum withdrawal (Act 160-2013, Article 4.4).

Benefit: The benefit, commencing at age 60, is equal to 1.8% of Average Compensation multiplied by years of Creditable Service at date of termination (Act 160-2013, Article 4.4). In no event will the benefit determined be less than the Minimum Benefit.

6. Death Benefits

a. Pre-retirement Death Benefit

Eligibility: Any current non-retired member is eligible.

Benefit: The benefit is as follows:

- (i) While in active service, the benefit equals a refund of Accumulated Contributions, plus interest accumulated at 2.0% per annum until the date of death; plus, if death occurred on or before July 31, 2014, an amount equal to one year of Compensation in effect at the time of death (Act 160-2013, Article 3.18).
- (ii) While not in active service, the benefit equals a refund of Accumulated Contributions, plus interest accumulated at 2.0% per annum up to separation of service (Act 160-2013, Article 3.17).

b. Post-retirement Death Benefit for members who retired on or before July 31, 2014

Eligibility: Any retiree or disabled member receiving a monthly benefit who retired on or before July 31, 2014.

Benefit: The benefit is as follows:

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- (i) Full pension for the month in which the pensioner died plus an additional fifteen-day pay period payable to the member's eligible beneficiaries (Act 160-2013, Article 4.8). In no case shall the benefit be less than \$1,000. The General Fund pays up to \$500. The System pays for the rest. (Act 160-2013, Article 4.8 and Act 272-2004)
- (ii) For those married at the time of death, the lifetime annual income to a widow or widower is equal to 50% of the Retirement Benefit at time of death, payable for life (Act 160-2013, Article 4.8).
- (iii) For those with children at the time of death, the total lifetime annual income to all children is equal to 50% of the Retirement Benefit at time of death. The benefit is payable while the children are under age 6 or are currently enrolled in a regular public or private school or college program until the age of 22, and it is payable for life while they are disabled (Act 160-2013, Article 4.8).
- (iv) The benefit, when there is no relation as stated above, is equal to the remaining balance of Accumulated Contributions with interest (interest is determined as of the date of retirement if retired directly from active service or as of separation of service otherwise) after the deduction of lifetime annual income paid and is payable to a beneficiary or to the Member's estate (Act 160-2013, Article 4.8).

c. Post-retirement Death Benefit for Members who retire August 1, 2014 or later

Eligibility: Any retiree or disabled member receiving a monthly benefit whose retirement occurred August 1, 2014 or later (Act 160-2013, Articles 4.8 and 5.11).

Benefit: If the member elected at the time of retirement to transfer a portion of the annuity to a beneficiary by selecting an actuarially equivalent optional form of payment, the applicable survivor benefit (Act 160-2013, Article 5.11).

For all members, the excess, if any, of the Accumulated Contributions with interest (interest is determined as of the date of retirement if retired directly from active service or as of separation of service otherwise) after the deduction of lifetime annual income paid and is payable to a beneficiary or to the member's estate (Act 160-2013, Article 5.11).

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

7. Disability Benefits

a. Non-occupational Disability

Eligibility: All members are eligible for Non-occupational Disability upon 5 years of Creditable Service and the occurrence of disability (Act 160-2013, Article 4.5).

Benefit: 1.8% of Average Non-occupational Disability Compensation multiplied by years of Creditable Service (Act 160-2013, Article 4.6). In no event will the benefit determined be less than the Minimum Benefit.

b. Occupational Disability

Eligibility: All members disabled while in the course and as a consequence of their work (Act 160-2013, Article 4.5).

Benefit: 1.8% of Average Occupational Disability Compensation multiplied by years of Creditable Service (Act 160-2013, Article 4.6). In no event will the benefit determined be less than the Minimum Benefit.

8. Minimum Benefits

a. Past Ad hoc Increases: The legislature, from time to time, increases pensions for certain retirees as described in Act 124-1973 and Act 47-1984. The benefits are paid 50% by the General Fund and 50% by the System.

b. Current Minimum Benefit: The minimum monthly lifetime income for members who retire or become disabled is \$400 per month effective July 1, 2007 (\$300 per month up to June 30, 2007). The General Fund will pay for the \$100 per month increase in the minimum benefit (Act 38-2007, Section 3).

9. Cost-of-Living Adjustments (COLA) to Pension Benefits: The legislature, from time to time, increases pensions by 3% for retired and disabled members. Beneficiaries are not entitled to COLAs granted after the retiree's death. The first increase was granted by Act 62-1992. Subsequent 3% increases have been granted every third year since 1992, with the latest 3% increase established on April 24, 2007 and effective July 1, 2007 (retroactive to January 1, 2007) for retired and disabled members that were receiving a monthly benefit on or before January 1, 2004 (Act

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38-2007). In addition, effective July 1, 2008, any retired or disabled member that was receiving a monthly annuity on or before January 1, 2004 less than \$1,250 per month received an increase of up to 3% without exceeding the limit of \$1,250 per month (Act 38-2007). All COLAs are paid by the General Fund, with the exception of Act 226-1998 (various Acts).

10. Medical Insurance Plan Contribution: A payment of up to \$100 per month to the eligible medical insurance plan selected by the retiree or disabled member provided the member retired prior to August 1, 2014. This benefit is paid from the Supplemental Contributions (see Employer Contribution section). (Act 160-2013, Article 4.9).

11. Special “Bonus” Benefits:

a. Christmas Bonus: An annual bonus of \$200 for each retiree and disabled member paid in December provided the member retired prior to August 1, 2014. This benefit is paid from the Supplemental Contributions (see Employer Contribution section). (Act 160-2013, Article 4.9).

b. Medication Bonus: An annual bonus of \$100 for each retiree, beneficiary, and disabled member to cover health costs paid in July provided the member retired prior to August 1, 2014. Evidence of coverage is not required. The amount is prorated if there are multiple beneficiaries. This benefit is paid from the Supplemental Contributions (see Employer Contribution section). (Act 160-2013, Article 4.9).

12. Member Contributions: Contributions by Members are 9% of Compensation (Act 160-2013, Article 4.3). Before January 27, 2000, member contributions were 7% of Compensation. In addition, members who retired due to age and service who are not age 55 and 30 years of Creditable Service at the time of retirement are required to continue to pay the member contributions as described in Item 4b.

13. Service Purchase: Active members with eligible service from prior employment may elect to purchase service in PRTRS. The cost of the purchase is calculated by applying the PRTRS statutory member and employer contribution rates to the member’s salary during the years of service at the former employer. The amount due to member contributions is accumulated at 9.5% compound per year until the time of service purchase. If the service purchase is a time purchase and not an

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intergovernmental service transfer, the amount due to employer contributions is accumulated at 9.5% compound per year until the time of service purchase. The accumulation rate was 2% compound per year for purchases prior to December 24, 2013. Any amount not covered by asset transfers from the member's prior pension fund is payable by the member. (Act 160-2013, Article 3.6)

14. Act 70-2010 Retirement Incentive: During the 2010-2011 fiscal year, Act 70-2010 provided for an early retirement incentive. Additional window periods occurred through December 31, 2012. Active members who had at least 15 years of service, but less than 30 years of service, were able to retire immediately with an enhanced benefit ranging from 37.5% to 50% of salary. This enhanced benefit is paid by the General Fund until the member reaches the later of age 55 or the date the member would have completed 30 years of service had the member continued working. The System will have the liability to pay the benefit after this time period. While the General Fund is paying the pension benefit to the member or any surviving beneficiary, the General Fund will also pay a contribution to the System equal to the employer contribution rate (11.50% for the 2013-2014 fiscal year) applied to final salary. The employer contribution rate applied to final salary increases as under Act 160-2013 to an ultimate rate of 20.525% of payroll in 2021-2022 and thereafter. Members who retired under this incentive are not eligible to receive the Medical Insurance Plan Contribution.

Provisions applicable to members hired August 1, 2014 and later

1. Type of Plan

A contributory, hybrid plan. A hybrid plan, such as a cash balance plan, determines the benefit amount based on a formula using contributions and earning credits, has notional individual accounts for members, and provides lifetime annuity benefits.

2. Eligibility for Membership

Members of the Teacher's Retirement System of Puerto Rico include teachers hired by the Department of Education August 1, 2014 and later, licensed teachers working in private schools or other educational organizations who elect to become members August 1, 2014 and later, and employees of the System hired August 1, 2014 or later. (Act 160-2013, Article 3.1)

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

3. Definitions

- a. Fiscal Year: A Fiscal Year is a 12-month period beginning on July 1 and ending on June 30.
- b. Fund: System Contribution Fund (Act 160-2013, Article 4.1).
- c. General Fund: The General Expenses Budget of the Government of the Commonwealth of Puerto Rico.
- d. Creditable Service: The years and months of plan participation, during which contributions have been made, beginning on the date of the first original appointment for rendering services. For purposes of calculating Creditable Service, 15 calendar days of a school year month shall be equal to 1 calendar month worked during the school year for teachers; and 21 calendar days of a month shall be equal to 1 calendar month worked for other participants. (Act 160-2013, Article 3.8)
- e. Compensation: The gross cash compensation, excluding bonuses and overtime, upon which contributions by a Member to the Fund are based (Act 160-2013, Article 1.1).
- f. Actuarial Equivalent: Equality in value such that the present value of the amount under any form of payment is essentially the same as the present value of the amount under the normal form of annuity payment for single participants. Actuarially Equivalent factors are determined based on annuity and mortality tables adopted by the Board of Trustees based on the system's experience and in accordance with the recommendations of the actuary.
- g. Defined Contribution Account: The notional individual account established for each new member as of August 1, 2014 and later. Each member has a nonforfeitable right to their contributions to the Defined Contribution Account. (Act 160-2013, Article 1.1)
- h. Credits to Defined Contribution Account: The credits to the Defined Contribution Account include (1) contributions by the member and (2) the investment yield for each semester of the fiscal year as determined by the Board. The investment yield determined by the Board shall never be less than 80% of the investment

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portfolio yield of the System during each semester of each fiscal year minus management fees such as, but not limited to, fees payable to portfolio managers, custody, and investment advice. (Act 160-2013, Article 5.8)

4. Retirement Benefits

- a. Eligibility: Age 62 with 5 or more years of Creditable Service and a balance in the Defined Contribution Account balance of \$10,000 or more (Act 160-2013, Article 3.9).
- b. Benefit: An annuity payable for the lifetime of the member equal to the annuitized value of the balance in the Defined Contribution Account at the time of retirement (Act 160-2013, Article 5.10).

5. Termination Benefits

a. Lump Sum Withdrawal

Eligibility: A Member is eligible upon termination of service prior to 5 years of service or if the balance in the Defined Contribution Account is less than \$10,000. (Act 160-2013, Article 3.4)

Benefit: The benefit equals a lump sum payment of the balance in the Defined Contribution Account as of the date of the permanent separation from service, plus interest for a period no longer than 6 months following separation of service. (Act 160-2013, Article 3.4)

b. Deferred Retirement

Eligibility: A Member is eligible upon termination of service prior to age 62, completion of 5 or more years of Creditable Service, and a balance in the Defined Contribution Account of \$10,000 or more (Act 160-2013, Article 3.9).

Benefit: An annuity payable for the lifetime of the member commencing at age 62 equal to the annuitized value of the balance in the Defined Contribution Account at the time of retirement (Act 160-2013, Article 5.10).

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

6. Death Benefits

a. Pre-retirement Death Benefit

Eligibility: Any current non-retired member is eligible (Act 160-2013, Article 5.11).

Benefit: A refund of the Defined Contribution Account (Act 160-2013, Article 5.11).

b. Post-retirement Death Benefit

Eligibility: Any retiree or disabled member (Act 160-2013, Article 5.11).

Benefit: If the member elected at the time of retirement to transfer a portion of the annuity to a beneficiary by selecting an actuarially equivalent optional form of payment, the applicable survivor benefit (Act 160-2013, Article 5.11).

For all members, the excess, if any, of the Defined Contribution Account at the time of retirement over the total monthly pension payments paid to the member and any beneficiary per the terms of the optional form of payment shall be payable to a beneficiary or to the member's estate (Act 160-2013, Article 5.11).

7. Disability Benefits

a. Eligibility: All members are eligible upon 5 years of Creditable Service and the occurrence of disability (Act 160-2013, Article 5.11).

b. Benefit: An annuity payable for the lifetime of the member equal to the annuitized value of the balance in the Defined Contribution Account at the time of disability (Act 160-2013, Article 5.11).

8. Member Contributions: Contributions by Members are 10.00% of Compensation from August 1, 2014 to June 30, 2017, 13.12% of Compensation from July 1, 2017 to June 30, 2020, and 14.02% of Compensation effective July 1, 2020 (Act 160-2013, Article 5.5).

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS
AS OF JUNE 30, 2014

Employer Contributions

1. Payroll-based Employer Contributions: Contributions by the Commonwealth of Puerto Rico and private school employers, as applicable, are 9.5% of Compensation for the fiscal year beginning July 1, 2011. For the next four fiscal years effective July 1, employer contributions will increase annually by 1%. For the next five fiscal years, employer contributions will increase annually by 1.25%, reaching an employer contribution rate of 19.75% effective July 1, 2020. Effective July 1, 2021 and later fiscal years, the employer contribution rate will be 20.525%. (Act 160-2013, Article 4.3) Prior to July 1, 2011, employer contributions were 8.5% of Compensation. The following table shows the employer contribution rate beginning with the 2011-2012 fiscal year.

Fiscal Year	Employer Contribution Rate
2011-2012	9.500%
2012-2013	10.500
2013-2014	11.500
2014-2015	12.500
2015-2016	13.500
2016-2017	14.750
2017-2018	16.000
2018-2019	17.250
2019-2020	18.500
2020-2021	19.750
2021-2022 & later	20.525

For members who retire due to age and service prior to attaining age 55 and 30 years of Creditable Service, continued member contributions are required for the time period described in Item 4b (if the member is hired on or before July 31, 2014). During this time period, the employer also makes contributions based on the rates described in the paragraph above as applied to the member's final salary. (Act 160-2013, Article 4.4)

2. Supplemental Contributions: Effective July 1, 2014, the System will receive a supplemental contribution of \$1,675 each fiscal year for each pensioner (including beneficiaries receiving survivor benefits). This supplemental contribution will be paid by the General Fund. (Act 160-2013, Article 4.9)

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS AS OF JUNE 30, 2014

3. Teacher's Justice Uniform Contribution: The System will receive the Teachers Justice Uniform Contribution of \$30 million for the 2016-2017 and 2017-2018 fiscal years and \$60 million for each fiscal year from 2018-2019 to 2041-2042. The Teacher's Justice Uniform Contribution will be paid by the General Fund. (Act 160-2013, Articles 1.1 and 7.1)
4. Annual Additional Contribution: During each fiscal year from 2018-2019 through 2041-2042, the System will receive an Annual Additional Contribution certified by the external actuary of the System as necessary to avoid having the projected gross assets of the System, during any subsequent fiscal year, fall below \$300 million. The Annual Additional Contribution will be paid by the General Fund. (Act 160-2013, Articles 1.1 and 7.1)

Changes in Plan Provisions since Prior Valuation

Act 160-2013 (enacted December 24, 2013) proposed benefit changes for all members of PRTRS. Based on the Puerto Rico Supreme Court decision (dated April 11, 2014), many changes were struck down. A summary of the changes that passed Supreme Court review follows below based on the member's date of hire.

Members hired before August 1, 2014

The following changes were made for members hired before August 1, 2014:

- The stop date for the additional contribution required for retirement due to age and service prior to age 55 and 30 years of Creditable Service was changed to age 55 for members who retired on or after December 24, 2013.
- The payroll-based employer contributions are also required to be made on behalf of members who retired due to age and service while the member is paying the additional contribution.
- System-funded post-retirement death benefits were eliminated for members who retire on August 1, 2014 or later. If a member elects an optional form of annuity with a survivor benefit, the member's benefit will be actuarially reduced to reflect the cost of the survivor benefit.
- The in-service one-year of salary lump sum death benefit was eliminated effective July 31, 2014.
- The Christmas Bonus was reduced from \$600 to \$200, and the Summer Bonus of \$100 was eliminated for members in pay status.

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- All Special Law bonus benefits (Christmas Bonus, Medication Bonus, and Medical Insurance Plan Continuation) were eliminated for members retiring on or after August 1, 2014.
- The accumulation rate on service purchase was increased from 2% compound per year to 9.5% compound per year.

Members hired on or after August 1, 2014

New members would be covered by a contributory hybrid plan. A hybrid plan, such as a cash balance plan, determines the benefit amount based on a formula using contributions and earning credits, has notional individual accounts for members, and provides lifetime annuity benefits. The primary provisions of the contributory hybrid plan are as follows.

- Member contributions of
 - 10.00% of compensation for Fiscal Years 2014-2015 through 2016-2017
 - 13.12% of compensation for Fiscal Years 2017-2018 through 2019-2020
 - 14.02% of compensation for Fiscal Year 2020-2021 and each year thereafter
- The member contributions are credited to a notional individual account each year.
- The notional individual account is credited with investment yield for each semester of the fiscal year as determined by the Board. The investment yield determined by the Board shall never be less than 80% of the System's investment portfolio yield during each semester, less investment fees.
- Normal retirement age of 62 with 5 or more years of service and a notional account balance of \$10,000 or more.
- Members who separate from employment with less than 5 years of service or who have a notional account balance less than \$10,000 would receive their notional account balance as a lump sum.
- Members who separate from employment with 5 or more years of service and a notional account balance of \$10,000 or more would receive their benefit in the form of a mandatory annuity.
 - Members who separate at or after normal retirement age would receive an immediate annuity.
 - Members who separate prior to normal retirement age for reasons other than disability would receive a deferred annuity commencing at normal retirement age, with interest credits continuing to accrue to the account during the deferral period.

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- Members who separate prior to normal retirement age due to disability would receive an immediate annuity.
- The mandatory annuity would be a “modified cash refund” of the member’s account balance - which means that if the accumulated annuity payments at the time of post-retirement death are less than the account balance at the time of retirement, then the beneficiary would receive the remainder of the account.
- Beneficiaries of members who die prior to retirement would receive a lump sum payment of the members’ accumulated account balance at the time of death.

Employer contributions

Additional employer contributions (Supplemental Contribution, Teacher’s Justice Uniform Contribution, and Annual Additional Contribution) were also enacted.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Investment Return: 6.65% per annum, net of investment expenses

Municipal Bond Rate: 4.29% per annum (Bond Buyer General Obligation 20-Bond Municipal Bond Index)

GASB 67 discount rate: 4.33% per annum

GASB 45 discount rate: 3.10% per annum

Compensation Increases: Compensation increases vary by years of creditable service as shown below. The rates below include the assumption for general wage inflation of 2.5%. However, no compensation increases are assumed from July 1, 2013 until July 1, 2017 as a result of Act 66-2014.

Years of Creditable Service	Increase in Annual Rate over Prior Year
1-5	4.70%
6	4.50
7	4.30
8	4.10
9	3.90
10	3.80
11	3.70
12	3.60
13	3.50
14	3.30
15	3.20
16	3.10
17-19	3.00
20	2.90
21	2.80
22	2.75
23	2.70
24-27	2.65
28	2.60
29 & Over	2.50

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Defined Contribution Account: Member contributions to the Defined Contribution Account are assumed to be 14.02% of Compensation (the ultimate rate). Defined Contribution Accounts are assumed to grow using a 5.32% annual investment return (80% of the net investment return assumption).

Annuitization of Defined Contribution Account: Single life annuity factors using an interest rate of 4% and the RP-2000 Healthy Annuitant Mortality Table for ages 50 and over and the RP-2000 Employee Mortality Table for ages under 50, projected to 2025 using Scale AA and blended 50% male / 50% female, are used to convert the Defined Contribution Account to a lifetime annuity.

Termination: Withdrawal rates vary by gender and years of creditable service. The withdrawal rates are shown below.

Years of Creditable Service	Male	Female
0	12.00%	15.00%
1	9.00	8.00
2	6.00	5.00
3	3.00	3.00
4	3.00	2.75
5	2.50	2.50
6	2.50	2.25
7	2.00	2.00
8	1.50	1.50
9	1.00	0.50
10+	0.10	0.05

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Retirement for members hired on or before July 31, 2014: Rates of retirement vary by age and years of creditable service. The rates shown below apply when an active member is eligible for retirement (e.g. age 47 with at least 25 years of creditable service or age 60 with at least 10 years of creditable service).

Age	Less than 30 years of Creditable Service	30 or more years of Creditable Service
47-49	0.5%	20.0%
50-54	2.0	25.0
55-59	5.0	30.0
60-61	10.0	25.0
62-64	12.0	25.0
65-79	15.0	25.0
80	100.0	100.0

Current terminated vested members as of the census data collection date were assumed to retire (i) at age 55, or attained age if later, if the member had at least 30 years of service or (ii) at age 60, or attained age if later, otherwise. Future terminated vested participants are assumed to retire at age 60.

Retirement for members hired August 1, 2014 or later: Rates of retirement vary by age. The retirement rates are shown below.

Age	Annual Rate
62	25%
63-64	10
65-66	15
67	20
68-69	25
70-79	30
80	100

Future terminated vested participants are assumed to retire at age 62.

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Service Purchases for members hired on or before July 31, 2014: Members over age 50 who are not eligible for retirement are assumed to elect to purchase enough service to retire immediately at the rates shown in the table below.

Age	Annual Rate
50-54	0.5%
55-59	1.0
60-64	2.0
65-79	8.0

In addition, 50% of active members retiring prior to attaining 30 years of creditable service are assumed to purchase enough years of service upon retirement to attain 30 years of creditable service.

Disability: Unisex rates which vary by age and years of creditable service are assumed. Illustrative rates are shown below. Rates of disability cease to apply upon attainment of retirement eligibility.

Age	Less than 5 years of Creditable Service	5 or more years of Creditable Service
25	0.008%	0.013%
30	0.008	0.013
35	0.008	0.013
40	0.009	0.014
45	0.020	0.031
50	0.068	0.105
55	0.133	0.204
60	0.163	0.251
65	0.157	0.242
70	0.144	0.222

Pre-retirement Mortality: RP-2000 Employee Mortality Rates for males and females, projected on a generational basis using Scale AA. As a generational table, it reflects mortality improvements both before and after the measurement date.

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Post-retirement Healthy Mortality: Rates which vary by gender are assumed for healthy retirees and beneficiaries based on a study of plan's experience from 2007 to 2012 equal to 92% of the rates from the UP-1994 Mortality Table for Males and 87% of the rates from the UP-1994 Mortality Table for Females. The rates are projected on a generational basis starting in 1994 using Scale AA. As a generational table, it reflects mortality improvements both before and after the measurement date.

Post-retirement Disabled Mortality: Rates which vary by gender are assumed for disabled retirees based on a study of plan's experience from 2007 to 2012 equal to the rates in the UP-1994 Mortality Table for males and females. No provision was made for future mortality improvement for disabled retirees.

Marriage: 65% of current active and terminated members are assumed to be married at retirement with males 3 years older than females.

Form of Payment: Future retired members who retire on or before July 31, 2014 are assumed to receive a joint and 50% survivor annuity if married and a modified cash refund (approximated by a single life annuity with 3 years certain) if not married. Future retired members who retire after July 31, 2014 are assumed to receive a modified cash refund (for members hired on or before July 31, 2014 approximated by a single life annuity with 3 years certain).

Spousal information was not provided for current retired and disabled members. A 65% marriage assumption was applied to all current retirees and disabled members retroactively to the date of retirement or disability. The spouse's date of birth was imputed based on an assumed age difference of 3 years with males older than females. A 3-year certain period, retroactive to date of retirement or disability, is applied to approximate the cost of a modified cash refund for retirees without a surviving spouse.

No future dependent children were assumed to become beneficiaries.

Members who terminate employment with at least 5 years of service (10 years of service if hired on or before July 31, 2014) are assumed to elect to receive a deferred pension benefit in lieu of a refund of contributions.

Medical Insurance Plan Contribution: 85% of eligible retirees and disableds were assumed to receive a monthly medical insurance continuation benefit of \$100 per month.

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Administrative Expenses: Average of past two year's expense is added to the normal cost. For 2014, this amount is \$21,705,000.

Census Data Collection Date: July 1, 2013. However, due to the large number of retirements during 2013-2014, census data for new retired members as of June 30, 2014 is reflected. When information is provided by participant category in this report, the category is determined as of the census data collection date.

Special Data Adjustments: The following adjustments were made to the census data received from the System.

The entry age for active members was assumed to be the age as of June 30, 2013 less the provided years of creditable service. In addition, creditable service was limited such that no active member was hired prior to age 15.

If not provided by the System, benefits for new and continuing retired and terminated vested participants were estimated based on the years of credited service and earnings history available from prior valuations.

Refer to the Form of Payment assumption above for a description of spousal data imputation for current retired and disabled members.

If not provided by the System, the portion of the annual benefit payable to current beneficiaries attributable to past COLA adjustments was assumed to be 5% (and thus paid by the General Fund of the Commonwealth of Puerto Rico instead of the System).

Benefits for current beneficiaries who are under age 22 as of the valuation date were assumed to cease at age 22. Benefits for current beneficiaries who are age 22 or older as of the valuation data were assumed to be payable for life. In addition, the current level of benefit was assumed to remain constant.

Benefits not valued: The minimum post-retirement death benefit of \$1,000 for retirees without surviving beneficiaries is not explicitly valued. The additional liability associated with this benefit is expected to be de minimis.

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SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Changes in actuarial assumptions since the prior valuation: The investment return assumption was increased from 6.25% to 6.65%. The interest rate assumption for GASB 45 accounting purposes was decreased from 3.25% to 3.10%.

In addition, several assumptions were revised due to the Act 160-2013 changes including the form of payment assumption for members hired on or before July 31, 2014 who retire August 1, 2014 or later and incidence of retirement and disability, commencement of benefits for terminated vested members, and form of payment assumptions for members hired August 1, 2014 or later. The assumptions for the Defined Contribution Account were added due to the Act 160-2013 changes.

As no experience exists yet for members hired August 1, 2014 and later, the demographic assumptions are based on professional judgment. The assumptions will be reviewed and revised as appropriate once actual experience emerges for these members.

The compensation assumption was revised to lower the general wage inflation assumption from 3.5% to 2.5% and to reflect Act 66-2014.

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PUERTO RICO TEACHERS RETIREMENT SYSTEM

SECTION X – SUMMARY OF ACTUARIAL METHODS AS OF JUNE 30, 2014

The ultimate cost of a pension plan is the excess of actual benefits and administrative expenses paid over actual net investment return on plan assets during the plan's existence until the last payment has been made to the last participant. The plan's "actuarial cost method" determines the expected incidence of actuarial costs by allocating portions of the ultimate cost to each plan year. The cost method is thus a budgeting tool to help to ensure that the plan will be adequately and systematically funded and accounted for. There are several commonly-used cost methods which differ in how much of the ultimate cost is assigned to each prior and future year. Therefore, the pattern of annual contributions and accounting expense varies with the choice of cost method. Annual contributions and accounting expense are also affected by the "asset valuation method" (as well as the plan provisions, actuarial assumptions, and actual plan demographic and investment experience each year).

Actuarial Cost Method

The plan's actuarial cost method is the entry age normal method (level percentage of payroll). Under this method, a projected benefit is determined at each active participant's assumed retirement age assuming future compensation increases. The plan's normal cost is the sum of each active participant's annual cost for the current year of service determined such that, if it were calculated as a level percentage of his compensation each year, it would accumulate at the valuation interest rate over his total prior and future years of service to his assumed retirement date into an amount sufficient to fund his projected benefit. The plan's accrued liability is the sum of (a) the accumulation of each active participant's normal costs attributable to all prior years of service plus (b) the present value of each inactive participant's future benefits.

Asset Valuation Method

The Market Value of Assets.

Liability Determination

The results as of June 30, 2014 are based on projecting the System obligations determined as of the census data collection date of July 1, 2013 for one year using roll-forward methods, assuming no liability gains or losses.

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SECTION X – SUMMARY OF ACTUARIAL METHODS AS OF JUNE 30, 2014

Changes in actuarial methods since the prior valuation

The actuarial cost method used for the special bonus benefits administered by PRTRS and paid by the General Fund was revised from the level dollar variation of the entry age normal method to the level percentage of payroll variation of the entry age normal method to comply with the requirements of GASB 67. The actuarial cost method for the medical insurance plan contribution (GASB 45) was also changed from the level dollar variation of the entry age normal method to the level percentage of payroll variation of the entry age normal method.

Due to the change in the census collection date to the beginning of the fiscal year, rather than the end of the fiscal year, the year-end liabilities are now determined using roll-forward methods, assuming no liability gains or losses.

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