# PUERTO RICO GOVERNMENT EMPLOYEES RETIREMENT SYSTEM June 30, 2014 Actuarial Valuation Report

(revised)



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October 16, 2015

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Dear Mr. Ortiz:

This report presents the results of the actuarial valuation of the Puerto Rico Government Employees Retirement System (PRGERS), a cost-sharing multiple employer defined benefit pension plan, 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 report replaces the one dated September 28, 2015 due to a subsequent revision in asset information.

# <u>Purpose</u>

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.

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

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The report was prepared solely to provide assistance to the Commonwealth of Puerto Rico Government Employees Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PRGERS' operations, and uses PRGERS' data, which Milliman has not audited. Milliman and PRGERS do not intend to benefit and assume no duty or liability to other parties who receive this report. Milliman and PRGERS 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 as of June 30, 2014 provided by PRGERS on October 9, 2015 and is subject to change upon audit.

#### <u>Future Measurements</u>

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 assumptions, other assumption sets may also be reasonable and valuation results

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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.

Act 3, the comprehensive pension reform enacted on April 4, 2013, is a dynamic 50-year plan that is designed to provide enough cash for the System to be able to make full Basic System Benefit payments as they come due, to pay the new lower System Administered Benefits, and to pay debt service on the Pension Obligation Bonds. The reforms enacted through Act 3, by design, are a very long term plan, and constant monitoring will be needed to make sure the System stays on track. Actual experience may turn out better or worse than expected, thus future adjustments may be needed. Receipt of the Additional Uniform Contribution under Act 32 of 2013 (as amended by Act 244 of 2014) is critical to the System's ability to make payments as they come due.

#### 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 PRGERS. We believe that the actuarial assumptions and

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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. 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.

# 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,

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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 <sup>1</sup>		
Basic System Benefits	\$26,049,807	\$27,244,865
System Administered Benefits	2,891,561	2,974,652
Total	28,941,368	30,219,517
Net Fiduciary Position	701,361	127,488
Net Pension Liability	28,240,007	30,092,029

# GASB 45 Accounting (\$ amounts in thousands)

	June 30, 2013 <u>Valuation</u>	June 30, 2014 <u>Valuation</u>
Actuarial Accrued Liability <sup>1</sup> Actuarial Value of Assets Unfunded Actuarial Accrued Liability	\$1,482,879 <u>0</u> 1,482,879	\$1,438,475 <u>0</u> 1,438,475
Employer Normal Cost as a percent of payroll	0 0.00%	0 0.00%
Annual Required Contribution for upcoming fiscal year as a percent of payroll	88,508 2.54%	103,878 2.98%

<sup>&</sup>lt;sup>1</sup> A discussion of the benefits included in the Total Pension Liability and Actuarial Accrued Liability begins on page 3 of this section.

# SECTION I – SUMMARY

	July 1, 2012 Census Data <u>Collection</u>	July 1, 2013 Census Data <u>Collection</u>
Participa	ant Data	
Active Members Number Average Salary Total Annual Salary	134,566 \$26,532 \$3,570,339,000	125,671 \$27,764 \$3,489,096,000
Retirees Number Average Monthly Basic System Benefit <sup>1</sup> Average Monthly System Administered Benefit <sup>1</sup>	87,465 \$1,019 \$89	94,395 \$1,059 \$72
<u>Disabled Members</u> Number Average Monthly Basic System Benefit <sup>1</sup> Average Monthly System Administered Benefit <sup>1</sup>	16,571 \$423 \$131	16,649 \$436 \$185
Beneficiaries Number Average Monthly Basic System Benefit <sup>1</sup> Average Monthly System Administered Benefit <sup>1</sup>	13,825 \$216 \$103	13,453 \$228 \$99

Basic System Benefit and System Administered Benefit amounts shown above are for pension benefits, including minimum benefits and COLAs, and excludes benefits payable at a later date to Law 70 Section 4B retirees. Special Law "bonus" benefits are not reflected.

<sup>&</sup>lt;sup>1</sup> Amounts as of July 1, 2013 do not reflect the increase in the minimum monthly benefit from \$400 to \$500 effective July 1, 2013 under Act 3 for current pensioners and the corresponding increase for current beneficiaries.

# **SECTION I – SUMMARY**

#### **B.** General Discussion

#### Basic System Benefits

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

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

These benefits will be referred to as the "Basic System Benefits" throughout this report. The contributions required by statute to fund the Basic System Benefits listed above total 23.275% of payroll for the 2014-2015 fiscal year, comprising 10% from members and 13.275% from employers. These contribution rates are not actuarially determined. Statutory funding requirements in future years will increase under Law 116 (see page 4).

For members who retired prior to July 1, 2013 annuity benefits are subject to a \$500 monthly minimum. The amount in excess of \$200 and less than \$300 is a System Administered Benefit (see below) for all employees. The amount in excess of \$300 and less than \$400 is a System Administered Benefit for Public Corporation and Municipality employees.

#### System Administered Benefits

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

- Additional minimum pension benefits (if retired prior to July 1, 2013)
- Ad-hoc cost-of-living adjustments (COLAs) provided in past years
- Additional benefits due to death or disability for reasons specified in Act 127
- Medical insurance plan contribution (if retired prior to July 1, 2013)
- Christmas bonus (if retired prior to July 1, 2013)
- Medication bonus (if retired prior to July 1, 2013)

#### **SECTION I – SUMMARY**

System 2000 participants, other than those members receiving a disability annuity or receiving benefits under Act 127, do not receive any System Administered Benefits.

These benefits are funded on a pay-as-you-go basis from the General Fund or specific entity 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 PRGERS assets.

# Other Benefits

This report does not address the guarantee insurance reserve for life insurance on loans to plan members. (Please see Notes to Basic Financial Statements on pages 22 and 50 and Statements of Plan Net Assets on page 16 of the System's June 30, 2013 Basic Financial Statements.)

# Law 116 Employer Contributions

During the 2010-2011 fiscal year, Law 116 was enacted which increased employer contributions from the prior 9.275% of compensation to 10.275% 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% of compensation, reaching an ultimate employer contribution rate of 20.525% effective July 1, 2020.

#### Other Contributions

In addition to the payroll based contributions described under Basic System Benefits above, the System will receive Supplemental Contributions and an Additional Uniform Contribution from the General Fund, public corporations or municipalities.

The Act 3 Supplemental Contribution equals \$2,000 for each pensioner (including beneficiaries receiving survivor benefits) who was previously benefitting as an Act 447 or Act 1 member while an active employee. 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 July 1, 2013. The excess of these Supplemental Contributions will remain in the System to pay down the unfunded actuarial accrued liability.

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The Act 32 (as amended by Act 244) Additional Uniform Contribution that will be received each fiscal year from 2013-2014 through 2032-2033 is defined in Act 244 as follows:

"Additional Uniform Contribution.- shall mean, (a) for purposes of FY 2013-14, one hundred and twenty million dollars (\$120,000,000.00) and (b) for purposes of each fiscal year between 2014-15 and 2032-33, the uniform contribution certified by the external actuary of the System at least one hundred and twenty (120) days prior to the start of such fiscal year as necessary to avoid having the projected gross assets of the System, during any subsequent fiscal year, to fall below one billion dollars (\$1,000,000,000,000.00)."

As of the time of this report, only a fraction of the FY 2013-14 Additional Uniform Contribution has been received by the System.

# System Experience since Prior Valuation

The approximate actual rate of return since the prior valuation was 88.15% for 2013-2014. This rate of return is determined on a net asset basis. Because of the significant amount of Pension Obligation Bond proceeds that are currently invested (approximately \$3 billion), the net asset return of 88.15% is significant larger than the 8.35% return on a gross asset basis (see Section II Subsection C).

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 difference between actual and expected benefit payments, which arise from differences in termination and retirement activity and mortality versus expectations. During 2013-2014 this difference resulted in a gain of \$62 million.

# Change in Assumptions since Prior Valuation

This valuation reflects an increase in the investment return assumption from 6.40% per year to 6.75% per year. The 6.75% assumption reflects the asset allocation for the non-loan portion of the portfolio that was adopted by the Board during December 2013 as shown below and Milliman's capital market assumptions as of June 30, 2014. In

# **SECTION I – SUMMARY**

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 10.0% with no volatility.

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

Please note that this new interest rate assumption of 6.75% per year is just slightly higher than the debt service on some of the Pension Obligation Bonds. The debt service on the Pension Obligation Bonds ranges from 5.85% to 6.55%.

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.

As a result of the increase in the investment return assumption, the assumed investment return on the Defined Contribution Hybrid Contribution Accounts (80% of the net investment return assumption) was increased from 5.12% to 5.40%.

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.

This valuation also reflects a salary freeze until July 1, 2017 due to Act 66. While the Act 66 salary freeze only applies to Central Government employees, public corporations are mandated to achieve savings under Act 66, and we have assumed that they will meet this mandate by freezing salaries. Also, while municipalities are not impacted by Act 66, we have also assumed the salary freeze for these employees due to the current economic conditions in Puerto Rico.

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# Changes in Methods since the Prior Valuation

The actuarial cost method was revised from projected unit credit to the entry age normal method to comply with the requirements of GASB 67. The cost method for GASB 45 was also changed from projected unit credit to 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. 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.

# Changes in Plan Provisions since Prior Valuation

There have not been any changes in plan provisions since the prior valuation.

# Overview of Recent Significant Changes in Plan Provisions prior to 2013-2014

#### Act 3

Act 3, enacted on April 4, 2013, is a broad ranging dynamic 50-year plan with several significant changes that will eventually result in all active and retired members participating in a member funded hybrid plan. The focus of Act 3 is on cash flow for roughly the first half of the period, followed by a "catch-up" period for the second half. During the first half of the 50-year period, the combination of benefit changes and additional funding are designed to provide enough cash such that the System is expected to be able to pay full benefits and Pension Obligation Bond ("POB") debt service on schedule. During this time the System is expected to have gross assets on hand that are less than the outstanding POB liability. During the second half of the 50-year period, continued high employer contribution rates will be used to "catch up" and fill in member notional accounts with real assets. Following below is a summary of the components of Act 3 and a brief description of their contribution to the cash-flow solution.

 Hybrid plan – The existing defined benefit tiers of Act 447 and Act 1 have a finite time frame, but as of the present time make up the vast majority of the System's

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liability and cash outflow. Ceasing future defined benefit accruals under Act 447 and Act 1 and converting to a member-funded hybrid plan will result in lower benefit payments as these tiers wind down, and will make all future employer contributions available to pay benefits and POB debt service.

- Retirement age The retirement ages for the frozen accrued benefits of Act 447
  are increased, which results in a delay in cash outflow and thus lower cumulative
  future benefit payments to these members. Reduced early retirement was
  eliminated for Act 1, which results in a delay in cash outflow. The retirement age
  was also increased for System 2000 general members as well as all future
  members, which results in a delay in cash outflow.
- Member contributions The prior member contribution rate of 8.275% (varying for some members) is increased to 10% of pay. While this will result in higher hybrid plan benefits in the future, it will provide more assets in the near term that can support current benefit payments and POB debt service.
- Mandated annuitization System 2000 notional accounts were available as lump sum payments at termination/retirement. With a full cohort of active System 2000 members completing careers at roughly the same time that POB principal payments begin, lump sum payments would have had a deleterious effect on System assets. Act 3 hybrid accounts, which include the System 2000 accounts, are subject to mandatory annuitization, which will benefit the System on a cash flow basis by stretching out payments over time, thus providing the System "catch-up" time. The PRGERS Board has the authority for determining the annuitization factors and for updating the factors in future years. Such factors will be adopted by the PRGERS Board based on the recommendation of the System's actuary.
- Survivor benefits Act 447 and Act 1 offered survivor benefits at no cost to the retiree. For future retirees, the defined benefit portion of the Act 447 or Act 1 frozen annuity and the hybrid plan Act 3 annuity will be subject to an actuarially determined reduction if the member elects an annuity with a survivor benefit, resulting in lower future cash outflow.
- The occupational death benefit and the one year of salary death benefit were eliminated for Act 447 and Act 1 members, resulting in lower future cash outflow.
- Disability benefits, other than those provided under Law 127, were eliminated, resulting in lower future cash outflow. (A member who becomes disabled may receive their Defined Contribution Hybrid Contribution Account balance, and their accrued benefit if applicable under Act 447 or Act 1.)

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- Special law benefits Special law benefits are reduced for current retirees and eliminated for future retirees. The employers (Central Government, Public Corporations and Municipalities) will continue making contributions to the System as if all special law benefits were still in place for current and future Act 447 and Act 1 retirees, which will result in additional cash that can be applied to benefit payments and POB debt service.
- Minimum benefits The minimum pension payable was increased from \$400 to \$500 per month for current retirees only.

#### Act 32 (as amended by Act 244)

In addition to all of the Act 3 components discussed above, a separate law was passed, Act 32 (as amended by Act 244), which requires an additional annual contribution from the Commonwealth for 20 years. The initial additional annual contribution is defined as \$120 million, and with subsequent amounts adjusted as necessary for the System's gross assets to remain above \$1 billion.

#### Law 70

During the 2010-2011 fiscal year, Law 70 provided for an early retirement incentive. Additional window periods occurred through December 31, 2012. The Law provided benefits to retirees under the three sections discussed below.

- Section 4A Active members could terminate employment immediately and receive a bonus equal to one, three, or six months of salary (paid by the Commonwealth).
- Section 4B 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 for government employees and Public Corporations for their employees 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 pay the benefit after this time period. While the General Fund / Public Corporation is paying the pension benefit directly to the member or any surviving beneficiary, the General Fund / Public Corporation will also pay a contribution equal to the employer contribution rate (11.275% for the 2012-2013 fiscal year, with future increases under Law 116) of final salary to the System.

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Public Corporations also pay the employee contribution rate (currently 10%) to the System.

 Section 4C - Active members who had at least 30 years of service could retire immediately and receive a bonus equal to six-months of salary (paid by the Commonwealth). For any active employee who retired under Section 4C, the Public Corporation will pay a contribution equal to the employer contribution rate (11.275% for the 2012-2013 fiscal year, with future increases under Law 116) plus the employee contribution rate (currently 10%) of final salary to the System for five years after retirement.

For Law 70 Section 4B retirees, this valuation reflects that the System will be responsible for paying pension benefits at a specified future date for each retiree. Because the employers are temporarily making pension payments directly to the Section 4B retirees and the payments are not passing through the System, these temporary payments are not considered System Administered Benefits and thus are not included in this valuation.

The appropriate accounting for these temporary benefits is on the financial statements of each employer who is making payments directly to Law 70 Section 4B retirees during the temporary period. The accounting requirements are set forth in GASB 47, the standard that relates to Termination Benefits. If the employer is already preparing a GASB 45 valuation for other postemployment benefits, the termination benefits can be included in that valuation and consolidated with the underlying GASB 45 results.

#### Early Retirement Incentive Contributions

The early retirement incentive contributions are reflected in the System's financial statements in the year of the incentive even though these contributions are typically scheduled to be paid by the employer to the System over many years. As directed by the System, the actual employer contributions for GASB 67 accounting reflect early retirement incentive contributions on an accrual basis to match the amounts shown in the System's financial statements.

#### 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

# **SECTION I – SUMMARY**

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 IV 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 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). We note that, as a cost-sharing multiple employer plan, PRGERS was not required to report a Net Pension Obligation. 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 shown 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

# SECTION I – SUMMARY

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.

We note that, as a cost-sharing multiple employer plan, PRGERS is not required to report a Net OPEB Obligation. In accordance with paragraph 23 of GASB 45, the employers that participate in the plan should recognize annual OPEB expense equal to their contractually required contributions to the plan. The employers do not have an Annual Required Contribution (ARC) or a Net OPEB Obligation. (PRGERS reports an ARC for the system as a whole, not separate ARCs for the individual employers.) Any difference between contributions required and contributions made would produce an OPEB liability or asset at the employer level.

Note that GASB issued GASB 75 in June 2015 which makes changes to GASB 45 similar to how GASB 25/27 were updated by GASB 67/68. GASB 75 is effective beginning with the 2017-2018 fiscal year, unless earlier adoption occurs.

#### 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. 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.

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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.

GASB 67 and its implementation guide do not address the mechanics of the date of depletion projection when the retirement system is the issuer of Pension Obligation Bonds (POBs) – e.g. whether the date of depletion projection should be performed on a gross assets or net assets basis. Typically, the governmental sponsor issues the POBs and contributes the proceeds to the retirement system. However, PRGERS issued the POBs and is responsible for repaying the interest and principal on the bonds. As directed by the Treasury Department, the Government Development Bank, and the System (after consultation with the auditor), the asset basis for the date of depletion projection is the System's net assets (the gross assets less the Pension Obligation Bond proceeds). On this basis, net assets are exhausted in the 2014-2015 fiscal year and no calculation needs to be performed, as the tax-free municipal bond index applies in all years, and is thus the single equivalent interest rate that is used as the discount rate in the determination of the Total Pension Liability.

#### Cash Flow Projection for Basic System Benefits

PRGERS is a mature retirement system with a significant retiree population. Based on the statutory funding requirements prior to Act 3, the annual benefit payments and administrative expenses paid by the system were significantly larger than the member and employer contributions made to the system. Thus investment income must have been used to cover this negative cash flow and assets were projected to become exhausted by the end of this decade. Act 3, enacted on April 4, 2013, and Act 32 (as amended by Act 244) provided for significant pension reforms and additional contributions to the System to counter the imminent expected asset exhaustion.

# **SECTION I – SUMMARY**

As discussed earlier, Act 3 is a dynamic 50-year plan that is designed to provide enough cash for PRGERS to be able to make full Basic System Benefit payments as they come due, to pay the new lower System Administered Benefits, and to pay debt service on the POB's. The reforms enacted through Act 3, by design, is a very long term plan, and constant monitoring will be needed to make sure the System stays on track. Actual experience may turn out better or worse than expected, thus future adjustments may be needed. Receipt of the Additional Uniform Contribution under Act 32 of 2013 (as amended by Act 244 of 2014) is critical to the System's ability to make payments as they come due.

PRGERS net assets have been exhausted in the 2014-2015 fiscal year. If the increasing Law 116 employer contributions, the Supplemental Contribution under Act 3, and the Additional Uniform Contribution under Act 32 (as amended by Act 244) are not paid in full on an annual basis, PRGERS will continue being rapidly disfunded and gross assets will be exhausted.

# **SECTION II - SYSTEM ASSETS**

# A. Statement of Fiduciary Net Position

	June 30, 2013	June 30, 2014
Assets		
Cash and cash equivalents	\$415,066,000	\$269,492,000
Receivables and prepaid expenses:		
Accounts receivable	161,555,000	265,960,000
Prepaid bond cost	<u>29,981,000</u>	<u>0</u>
Total receivables	191,536,000	265,960,000
Investments:		
Bonds and notes	1,351,177,000	1,337,292,000
Nonexchange commingled trust funds	1,053,555,000	750,482,000
Stocks	75,000	102,000
Investments in limited partnerships	55,067,000	54,146,000
Total loans to plan members	791,161,000	619,379,000
Other assets	<u>5,261,000</u>	<u>5,695,000</u>
Total investments	3,256,296,000	2,767,096,000
Invested securities lending cash collateral	124,411,000	126,648,000
Capital assets	8,594,000	11,211,000
Total assets	\$3,995,903,000	\$3,440,407,000
Liabilities		
Bonds payable	\$3,065,065,000	\$3,091,463,000
Securities lending cash collateral	124,411,000	126,648,000
Other liabilities	75,085,000	94,808,000
Total liabilities	\$3,264,561,000	\$3,312,919,000
Net position restricted for pensions Net position restricted for pensions (adjusted	\$731,342,000	\$127,488,000
for POB)	\$701,361,000	\$127,488,000

# **SECTION II - SYSTEM ASSETS**

# B. Statement of Changes in Fiduciary Net Position

	<u>June 30, 2014</u>
Additions a. Contributions	
Employer Contributions	\$485,114,000
Member Contributions	359,862,000
Early Retirement Programs	40,300,000
Interest on cultural loans Appropriations for Special Laws	860,000 134,610,000
Total Contributions	\$1,020,746,000
b. Investment Income	
Interest Income	\$103,404,000
Dividend Income	75,000
Net Appreciation of Investments	124,907,000
Other Income	28,553,000
Investment Related Expenses  Net Investment Income	(3,381,000) \$253,558,000
Total Additions	\$1,274,304,000
Deductions	
Refund of Contributions	\$166,335,000
Annuities and Death Benefits	1,298,020,000
Special Law Benefits	134,610,000
Interest on cultural loans	860,000
Administrative Expenses	29,530,000
Other Expenses	25,875,000
Cost of Bonds	<u>192,947,000</u>
Total deductions	\$1,848,177,000
Net Increase (Decrease)	(\$573,873,000)
Net position restricted for pensions	
Beginning of year (June 30, 2013)	731,342,000
Beginning of year (Adjusted for POB)	701,361,000
End of year (June 30, 2014)	\$127,488,000

#### **SECTION II - SYSTEM ASSETS**

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

	Gross <u>Asset Basis</u>	Net <u>Asset Basis</u>
1. Value of Assets as of June 30, 2013	\$3,766,426,000	\$701,361,000
2. Total Contributions	1,020,746,000	1,020,746,000
3. Benefit Payments and Expenses	1,848,177,000	1,848,177,000
4. Value of Assets as of June 30, 2014	3,218,951,000	127,488,000
5. Non-Investment Increment: (2) - (3)	(827,431,000)	(827,431,000)
6. Investment Increment: (4) - (1) - (5)	279,956,000	253,558,000
7. Time Weighted Value: (1) +.5 * (5)	3,352,710,500	287,645,500
8. Estimated Annual Rate of Return: (6) / (	7) 8.35%	88.15%

#### D. Estimated Historical Rates of Return

Plan Year Ending	Gross <u>Asset Basis</u>	Net Asset Basis
June 30, 2014	8.35%	88.15%
June 30, 2013	7.88%	31.38%
June 30, 2012	7.39%	22.31%
June 30, 2011	16.55%	51.55%
June 30, 2010	10.01%	27.87%
5-year Compounded Annual Return	9.99%	42.42%

Prior year returns were calculated by Milliman using the methodology in Section D above, based on asset amounts and cash flows shown in prior valuation reports.

The rates of return determined on a gross asset basis are for illustrative purposes only and assume non-investment cash flows are the same as that determined on a net asset basis. Because of the significant amount of Pension Obligation Bond proceeds that are currently invested (approximately \$3 billion), the net asset returns are significantly larger than the returns on a gross asset basis.

# **SECTION III - MANAGEMENT INFORMATION**

#### A. Allocation of Liability by Pension Law and System Entity as of June 30, 2014

	GASB 67 Total Pension Liability for:			Actuarial
	Basic System <u>Benefits</u>	System Administered <u>Benefits</u>	Basic System and System Administered Benefits	Accrued Liability for GASB 45 <u>Benefits</u>
Government				
Act 447	\$13,266,817,000	\$1,609,129,000	\$14,875,946,000	\$873,813,000
Act 1	2,543,870,000	225,202,000	2,769,072,000	90,180,000
System 2000	990,998,000	255,074,000	1,246,072,000	428,000
	16,801,685,000	2,089,405,000	18,891,090,000	964,421,000
Public Corporations				
Act 447	6,158,282,000	557,543,000	6,715,825,000	262,855,000
Act 1	864,966,000	28,806,000	893,772,000	24,347,000
System 2000	399,208,000	865,000	400,073,000	<u>151,000</u>
·	7,422,455,000	587,215,000	8,009,670,000	287,353,000
Municipalities				
Act 447	2,020,317,000	222,771,000	2,243,088,000	162,067,000
Act 1	631,964,000	45,200,000	677,164,000	24,559,000
System 2000	368,443,000	30,060,000	398,503,000	75,000
,	3,020,725,000	298,030,000	3,318,755,000	186,701,000
Total				
Act 447	21,445,416,000	2,389,443,000	23,834,859,000	1,298,735,000
Act 1	4,040,800,000	299,210,000	4,340,010,000	139,086,000
System 2000	1,758,649,000	285,999,000	2,044,648,000	654,000
•	\$27,244,865,000	\$2,974,652,000	\$30,219,517,000	\$1,438,475,000

(Numbers shown may not add due to rounding.)

System Administered Benefits for System 2000 members are enhanced death and disability benefits for hazardous duty employees covered by Act 127 and the related bonus benefits for these members. GASB 45 benefits are the medical insurance plan contributions for these members.

# **SECTION III - MANAGEMENT INFORMATION**

# B. Accumulated Member Contributions for Active Members as of July 1, 2013

	Contribution Account <u>Balances</u>
Government Act 447	\$546,669,000
Act 1 System 2000	987,751,000 <u>512,637,000</u> 2,047,057,000
Public Corporations Act 447 Act 1 System 2000	222,068,000 286,775,000 <u>192,294,000</u> 701,137,000
Municipalities Act 447	95,392,000
Act 1 System 2000	233,672,000 <u>192,682,000</u> 521,746,000
Total	
Act 447 Act 1 System 2000	864,129,000 1,508,198,000 <u>897,613,000</u> 3,269,940,000
Market Value of Assets as of June 30, 2014	127,488,000

# <u>SECTION III – MANAGEMENT INFORMATION</u>

# C. Projection to Determine 2015-2016 Additional Uniform Contribution

The projection to determine the Additional Uniform Contribution ("AUC") for fiscal years 2015-2016 through 2032-2033 was determined on a deterministic basis and reflects the following:

- The unaudited December 31, 2014 gross asset amount of \$3.006 billion is used as the beginning gross asset value. This amount reflects \$3.187 billion assets offset by \$0.181 billion in liabilities. Pension Obligation Bond ("POB") proceeds are included in the gross asset value. While there is a liability of \$3.078 billion as of December 31, 2014 for the POBs, in the cash flow projection to determine the AUC the POB debt service payments are reflected as a cash outflow on a year-by-year basis along with benefit payments and administrative expenses.
- Projected investment income is based on the June 30, 2014 investment return assumption of 6.75% 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 assumes that all contributions, including the AUCs, will be paid when due. This includes the remainder of the 2013-2014 AUC being held as a receivable (about \$83 million as of June 30, 2014) and the entire 2014-2015 AUC of \$120 million.
- This projection reflects a stable future active membership of 125,671 active members (i.e. members who leave are replaced, but no net new hiring occurs) through the projection period.
- The new entrant cohort used for projection purposes is based on new entrants between June 30, 2007 and June 30, 2009 due to the reduction in workforce from June 30, 2009 through June 30, 2013 (the last census data collection date). The beginning salaries of the new entrant cohort were increased by 4% to reflect the passage of time; no other adjustments were made. Salaries for the new entrant cohort were assumed to remain constant through June 30, 2017 due to Act 66, and to increase 3% per year thereafter.
- Administrative expenses are assumed to grow 2.5% per year.
- While the projection assumes that the additional contributions are paid at the end
  of the fiscal year, the estimated AUC 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.

# <u>SECTION III – MANAGEMENT INFORMATION</u>

Based on the methodology and inputs discussed above, the Additional Uniform Contribution for Fiscal Year 2015-2016 is \$352 million, payable at the end of the fiscal year.

As seen on the chart at the end of this subsection, the AUC of \$352 million payable from Fiscal Year 2015-2016 to 2032-2033, is projected on a deterministic basis to prevent a decrease in assets below \$1 billion in any future 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 2040-2041). The tabular results of the projection are shown on the page following the chart.

# Illiquid Assets

The Act 32 AUC calculation is based on the objective of maintaining a \$1 billion gross asset buffer at all times. It is important to note that a material portion of System assets are illiquid in nature. Thus if the Act 32 AUC is not paid in full and the \$1 billion buffer is not maintained, the System will run into liquidity issues and may be forced to sell illiquid assets, potentially at significant loss to the further detriment of the System.

As of December 31, 2014, PRGERS had approximately \$764 million in illiquid assets, comprised primarily of loans to System members and the COFINA investment. This projection assumes that these illiquid assets will be converted to liquid assets when needed.

#### Annual Re-calculation of AUC

The AUC is re-calculated each fiscal year and reflects available System experience at the time of the determination. The AUC will increase or decrease depending on items including, but not limited to, the following:

- Demographic gains/losses (including changes in the size of the active membership and/or total payroll different than expected)
- Investment gains/losses
- Assumption changes
- Benefit provision changes
- Other statutory changes

# PUERTO RICO GOVERNMENT EMPLOYEES RETIREMENT SYSTEM <u>SECTION III – MANAGEMENT INFORMATION</u>

# Changes in AUC

The AUC has increased markedly from the initial \$140 million estimate prepared in 2013. Reasons for the increase are discussed below.

#### Active Membership Decrease

There has been an ongoing significant decline in the number of active members in PRGERS and the associated payroll. Law 7 and Law 70 have played a major role in this decline. Because PRGERS is funded by statutory Act 116 employer and Act 3 member contributions, decreases in payroll mean that fewer dollars are being contributed to PRGERS.

The initial FY 2013-14 AUC was based on the assumption that the previous years' layoffs and retirement incentives had brought PRGERS active membership to a new steady state level (from 2007 to 2012 active membership had decreased from over 171,000 to under 135,000). Thus the FY 2013-14 AUC was based on a projection of payroll increasing from the 2012-13 level of \$3.57 billion. Instead, as of June 30, 2013 the active membership decreased further by roughly 9,000 members, dropping below 126,000. Whereas a 3% increase in payroll would have brought payroll to \$3.68 billion, the new payroll was actually \$3.49 billion, lower by \$190 million.

Act 3 statutory member contributions are 10% of payroll, and Act 116 statutory employer contributions are 13.275% of payroll in FY 2014-15, increasing to 20.525% of payroll in FY 2020-21 and thereafter. The lower payroll due to the decrease of 9,000 members during 2012-13 results in \$3.1 billion less projected dollars of statutory member and employer contributions prior to the minimum gross asset year of 2040-41. This significant decrease in statutory contributions causes a significant increase in the AUC necessary to maintain the projected \$1 billion gross asset level, and is reflected over the AUC period which ends in FY 2032-33.

It is important to note that the System's unfunded liabilities are funded with dollars, not percentages of payroll. With contributions expressed as percentages of payroll under Act 3 and Act 116, when payroll declines the statutory rates generate less dollars, and the Act 32 AUC must increase to generate the same level of dollars.

# PUERTO RICO GOVERNMENT EMPLOYEES RETIREMENT SYSTEM SECTION III – MANAGEMENT INFORMATION

#### Act 66

Act 66 implements a salary freeze for FY 2014-15, 2015-16 and 2016-17 for Central Government employees. Due to the Act 66 required savings for public corporations and the current economic conditions in Puerto Rico, the salary freeze until July 1, 2017 was also assumed for public corporation and municipal employees. The projection for the FY 2015-16 AUC assumes that salary increases will resume thereafter. The impact of Act 66 is that in each projection year, payroll will be smaller than if the Act was not in place.

The lower future payroll due to Act 66 results in a further \$1.5 billion less projected dollars of statutory member and employer contributions prior to the minimum gross asset year of 2040-41. This further significant decrease in statutory contributions causes a further significant increase in the AUC necessary to maintain the projected \$1 billion gross asset level.

It is important to note that the System's unfunded liabilities are funded with dollars, not percentages of payroll. With contributions expressed as percentages of payroll under Act 3 and Act 116, when payroll declines the statutory rates generate less dollars, and the Act 32 AUC must increase to generate the same level of dollars.

#### Active Membership Decrease and Act 66 Impact in Total

The decrease in member and employer contributions prior to the minimum gross asset year of 2040-41 is \$3.1 billion due to decrease of 9,000 active members and \$1.5 billion due to Act 66. While both of these causes result in payroll and related cost savings for the participating employers, from the perspective of the statutory contribution rates, the System receives \$4.6 billion less expected funding during that period.

The AUC increase from \$140 million to \$352 million is \$212 million per year. For the remaining 18 years of the AUC period from FY 2015-16 to FY 2032-33, \$212 million per year totals approximately \$3.8 billion.

Thus the decreases in dollars generated by the statutory contribution serve to directly increase the AUC.

# PUERTO RICO GOVERNMENT EMPLOYEES RETIREMENT SYSTEM SECTION III – MANAGEMENT INFORMATION

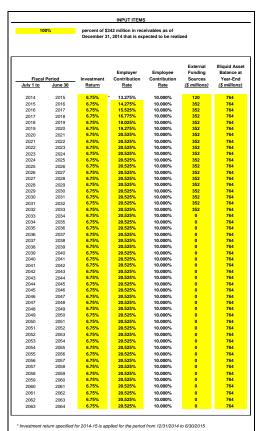
# Assumed investment return

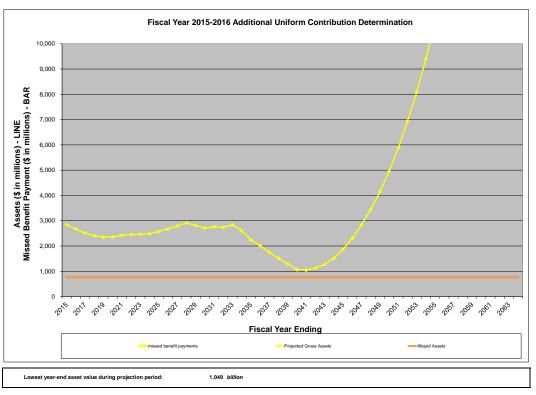
The AUC determination is also impacted by the assumed investment return. The 2012 cash flow model reflected the June 30, 2012 investment return assumption of 6.0% per year. This determination of the FY 2015-16 AUC reflects the June 30, 2014 investment return assumption of 6.75% per year. The increase in assumed investment return results in an additional \$1.0 billion in projected dollars of investment income prior to the minimum gross asset year of 2040-41. This results in a decrease in the AUC; however, the impact of the increase in assumed investment return was much smaller than the combined impact of the decrease in expected future payrolls due to active membership decrease and to Act 66.

# **SECTION III – MANAGEMENT INFORMATION**

#### Fiscal Year 2015-2016 Additional Uniform Contribution Determination

(Based on results of this June 30, 2014 valuation and December 31, 2014 assets)





# **SECTION III – MANAGEMENT INFORMATION**

#### Fiscal Year 2015-2016 Additional Uniform Contribution Determination

(Based on results of this June 30, 2014 valuation and December 31, 2014 assets)

	Fiscal	Period	Contributions					Disbursements				Commonwealth		System Assets (including POB proceeds)				
	July 1 to	June 30	Employer	Employee	<u>Law 70</u>	System-Admin Bonus Benefits	Total	Benefits	Admin Expenses	POB's	Total	Pay-as-you-go Benefit Payments	Investment Return	<u>Begin</u>	Cash Flow	Income	External	End
	2014	2015	450	339	31	105	925	1,458	30	167	1,655	0	6.75%	3,301	(730)	164	120	2,855
	2015	2016	480	336	32	109	957	1,466	30	167	1,663	0	6.75%	2,855	(706)	169	352	2,670
	2016	2017	519	334	33	113	999	1,470	31	167	1,668	0	6.75%	2,670	(669)	158	352	2,511
	2017	2018	573	342	33	116	1,064	1,474	32	167	1,673	0	6.75%	2,511	(609)	149	352	2,403
	2018	2019	630	350	33	119	1,132	1,479	33	167	1,679	0	6.75%	2,403	(547)	144	352	2,352
	2019	2020	689	357	32	122	1,200	1,488	33	167	1,688	0	6.75%	2,352	(488)	143	352	2,359
	2020	2021	750	365	31	125	1,271	1,500	34	167	1,701	0	6.75%	2,359	(430)	145	352	2,426
	2021	2022	765	373	28	128	1,294	1,516	35	217	1,768	0	6.75%	2,426	(474)	148	352	2,452
	2022	2023	781	381	26	132	1,320	1,534	36	234	1,804	0	6.75%	2,452	(484)	149	352	2,469
	2023	2024	798	389	24	135	1,346	1,556	37	239	1,832	0	6.75%	2,469	(486)	151	352	2,486
	2024	2025	815	397	22	138	1,372	1,576	38	174	1,788	0	6.75%	2,486	(416)	154	352	2,576
	2025	2026	833	406	20	142	1,401	1,597	39	176	1,812	-	6.75%	2,576	(411)	160	352	2,677
	2026 2027	2027 2028	852 871	415 424	18 17	144 147	1,429 1.459	1,615 1.632	40 41	181 187	1,836 1.860	0	6.75% 6.75%	2,677 2,789	(407) (401)	167 175	352 352	2,789
			890	424								0				175		2,915
	2028	2029 2030	909	434	16 15	149 151	1,489 1,518	1,650 1,668	42 43	429 428	2,121	0	6.75% 6.75%	2,915 2,811	(632) (621)	169	352 352	2,811
	2029	2030	930	453	13	152	1,548	1,686	44	290	2,020	0	6.75%	2,711	(472)	167	352	2,758
	2030	2032	951	463	12	153	1,548	1,703	45	376	2,020	0	6.75%	2,711	(545)	168	352	2,733
	2031	2032	973	474	10	153	1,610	1,703	46	264	2,124	0	6.75%	2,733	(418)	171	352	2,733
	2033	2034	997	486	9	153	1.645	1,732	47	271	2,050	0	6.75%	2.838	(405)	178	0	2,611
	2034	2035	1,022	498	7	153	1,680	1,745	48	412	2,205	0	6.75%	2,611	(525)	159	0	2,245
	2035	2036	1,048	510	6	152	1,716	1,755	50	277	2,082	0	6.75%	2,245	(366)	139	0	2,018
	2036	2037	1.074	523	4	150	1.751	1.765	51	325	2.141	0	6.75%	2.018	(390)	123	0	1,751
(S	2037	2038	1,103	538	3	148	1.792	1.768	52	319	2.139	Ö	6.75%	1,751	(347)	107	ō	1,511
(\$ millions)	2038	2039	1,132	551	2	144	1,829	1,770	53	312	2,135	0	6.75%	1,511	(306)	92	0	1,297
	2039	2040	1,163	567	1	141	1,872	1,772	55	347	2,174	0	6.75%	1,297	(302)	78	0	1,073
	2040	2041	1,197	583	1	136	1,917	1,769	56	185	2,010	0	6.75%	1,073	(93)	69	0	1,049
~	2041	2042	1,228	598	0	131	1,957	1,767	57	126	1,950	0	6.75%	1,049	7	71	0	1,127
	2042	2043	1,265	616	0	126	2,007	1,760	59	122	1,941	0	6.75%	1,127	66	78	0	1,271
	2043	2044	1,301	634	0	121	2,056	1,758	60	80	1,898	0	6.75%	1,271	158	91	0	1,520
	2044	2045	1,339	653	0	115	2,107	1,752	62	50	1,864	0	6.75%	1,520	243	111	0	1,874
	2045	2046	1,376	670	0	109	2,155	1,748	63	50	1,861	0	6.75%	1,874	294	136	0	2,304
	2046	2047	1,420	692	0	102	2,214	1,736	65	50	1,851	0	6.75%	2,304	363	168	0	2,835
	2047	2048	1,455	709	0	96	2,260	1,744	67	50	1,861	0	6.75%	2,835	399	205	0	3,439
	2048	2049	1,501	731	0	90	2,322	1,746	68	50	1,864	0	6.75%	3,439	458	247	0	4,144
	2049	2050	1,546	753	0	84	2,383	1,747	70	50	1,867	0	6.75%	4,144	516	297	0	4,957
	2050	2051	1,592	775	0	78	2,445	1,751	72	50	1,873	0	6.75%	4,957	572	354	0	5,883
	2051	2052	1,639	799	0	72	2,510	1,758	74	50	1,882	0	6.75%	5,883	628	418	0	6,929
	2052	2053	1,688	822	0	67	2,577	1,769	75	50	1,894	0	6.75%	6,929	683	490	0	8,102
	2053	2054	1,737	846	0	61	2,644	1,786	77	50	1,913	0	6.75%	8,102	731	571	0	9,404
	2054 2055	2055 2056	1,788 1,840	871 897	0	56 51	2,715 2,788	1,810 1,841	79 81	50 233	1,939 2,155	0	6.75% 6.75%	9,404	776 633	661 753	0	10,841 12,227
	2055	2056	1,840	923	0	46	2,788	1,841	83	233	2,155	0	6.75%	10,841 12,227	688	753 848	0	12,227
	2056	2057	1,895	923 951	0	46 41	2,864	1,876	83 85	203	2,176	0	6.75%	12,227	739	954	0	15,456
	2057	2058	2.009	951	0	37	3,025	1,916	85 87	203	2,204	0	6.75%	15,456	739	1.068	0	17,264
	2058	2059	2,009	1.008	0	37	3,025	2.012	90	0	2,285	0	6.75%	17,264	1.008	1,068	0	17,264
	2059	2060	2,069	1,008	0	29	3,110	2,012	90	0	2,102	0	6.75%	19,471	1,039	1,199	0	21,859
	2060	2062	2,131	1,036	0	25 25	3,288	2,126	94	0	2,159	0	6.75%	21.859	1,039	1,511	0	24,438
	2061	2062	2,194	1,101	0	22	3,383	2,120	94	0	2,220	0	6.75%	24,438	1,096	1,686	0	27,220
	2062	2063	2,200	1,134	0	19	3,480	2,190	99	0	2,356	0	6.75%	27,220	1,124	1,875	0	30,219
	2003	2004	2,321	1,134	U	15	J,40U	2,201	33	U	2,330	U	0.7370	21,220	1,124	1,075	U	30,219

# <u>SECTION III – MANAGEMENT INFORMATION</u>

# D. Asset Projection if only partial Additional Uniform Contributions are received

The following chart and table display the projection results if only partial Additional Uniform Contributions are paid. As directed by the System, instead of the \$352 million AUC for 2015-2016 through 2032-2033, only \$78.4 million is assumed to be paid for 2015-2016 and \$52 million is assumed to be paid for 2016-2017 through 2032-2033. All other aspects of the projection are the same as in the preceding subsection.

As provided by the System, the \$78.4 million for 2015-2016 is the average of 2013-2014 and 2014-2015 AUCs actually received from Employers (\$18.4 million) *plus* an anticipated \$60 million allocation from OMB that is expected to be realized.

As provided by the System, the \$52 million anticipated AUC payment from 2016-2017 through 2032-2033 is the average of the 2013-2014 and 2014-2015 AUCs actually received by the System as of August 2015 and the anticipated 2015-2016 AUC described above.

When assets are exhausted, the projection assumes that employer and employee contributions will first be allocated toward paying bondholders, with the remainder being used to pay retiree benefits. It is further assumed that any shortfall will be covered on a pay-as-you-go basis by the Commonwealth.

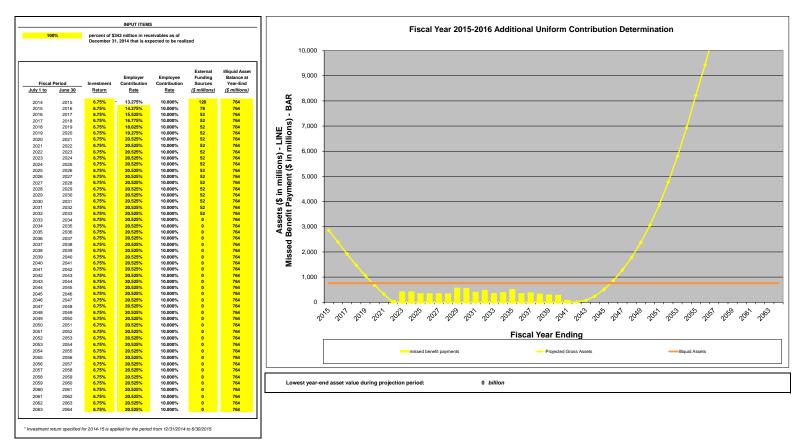
As shown on the following chart, gross assets would be depleted by 2021-2022. The System would be operating on a pay-as-you-go basis from 2021-2022 through 2040-2041, when assets would begin to accumulate.

Note that the projected assets drop below the current illiquid asset level of \$764 million during 2019-2020.

# **SECTION III – MANAGEMENT INFORMATION**

#### Asset Projection if only partial Additional Uniform Contributions are received

(Based on results of this June 30, 2014 valuation and December 31, 2014 assets)



# **SECTION III – MANAGEMENT INFORMATION**

# Asset Projection if only partial Additional Uniform Contributions are received

(Based on results of this June 30, 2014 valuation and December 31, 2014 assets)

	Fiscal Period  July 1 to June 30		Contributions					Disbursements				Commonwealth		System Assets (including POB proceeds)					
			Employer Employee		Law 70	System-Admin Bonus Benefits	Total	Benefits	Admin Expenses	POB's	Total	Pay-as-you-go Benefit Payments	Investment <u>Return</u>	Begin	Cash Flow	Income	External	End	
_																			
	2014	2015	450	339	31	105	925	1,458	30	167	1,655	0	6.75%	3,301	(730)	164	120	2,855	
	2015	2016	480	336	32	109	957	1,466	30	167	1,663	0	6.75%	2,855	(706)	169	78	2,396	
	2016	2017	519	334	33	113	999	1,470	31	167	1,668	0	6.75%	2,396	(669)	140	52	1,919	
	2017	2018	573	342 350	33	116	1,064	1,474	32	167	1,673	0	6.75%	1,919	(609)	109	52	1,471	
	2018	2019	630		33	119	1,132	1,479	33	167	1,679	0	6.75%	1,471	(547)	81	52	1,057	
	2019	2020	689	357	32	122	1,200	1,488	33 34	167	1,688	0	6.75%	1,057	(488)	55	52	676	
	2020	2021	750	365	31	125	1,271	1,500		167	1,701		6.75%	676	(430)	31	52	329	
	2021 2022	2022 2023	765 781	373 381	28 26	128 132	1,294 1,320	1,516 1,534	35 36	217 234	1,768 1.804	93 432	6.75% 6.75%	329 0	(474) (484)	0	52 52	0	
	2022	2023	781	389	26 24	132	1,320	1,534	36	234	1,804	432 434	6.75%	0		0	52 52	0	
	2023	2024	815	397	22	138	1,346	1,556	38	174	1,032	364	6.75%	0		0	52	0	
	2024	2025	833	406	20	142	1,401	1,576	39	174	1,700	359	6.75%	0		0	52	0	
	2025	2026	833 852	406 415	20 18	142	1,401	1,597	39 40	176	1,812	359 355	6.75%	0	(411)	0	52 52	0	
	2026	2027	852 871	415 424	17	144	1,429	1,615	40 41	187	1,836	355 349	6.75%	0	(407)	0	52 52	0	
	2027	2028	890	434	16	149	1,459	1,650	42	429	2,121	580	6.75%	0	(632)	0	52	0	
	2029	2030	909	443	15	151	1,518	1,668	43	428	2,139	569	6.75%	0	(621)	0	52	0	
	2030	2031	930	453	13	152	1,548	1,686	44	290	2,020	420	6.75%	0		0	52	0	
	2031	2032	951	463	12	153	1,579	1,703	45	376	2,124	493	6.75%	0	(545)	0	52	0	
	2032	2032	973	474	10	153	1,610	1,718	46	264	2,028	366	6.75%	0		0	52	0	
	2032	2034	997	486	9	153	1,645	1,732	47	271	2,050	405	6.75%	0		0	0	0	
	2034	2035	1.022	498	7	153	1,680	1,732	48	412	2,205	525	6.75%	0		0	0	0	
	2035	2036	1,048	510	6	152	1,716	1,755	50	277	2,082	366	6.75%	0	(366)	0	0	0	
	2036	2037	1,074	523	4	150	1,751	1,765	51	325	2,141	390	6.75%	ő		0	ő	0	
(S)	2037	2038	1.103	538	3	148	1.792	1.768	52	319	2.139	347	6.75%	ō		0	0	0	
. <u>5</u>	2038	2039	1.132	551	2	144	1,829	1.770	53	312	2.135	306	6.75%	ō		0	0	0	
millions)	2039	2040	1,163	567	1	141	1,872	1,772	55	347	2,174	302	6.75%	0	(302)	0	0	0	
₩.	2040	2041	1.197	583	1	136	1.917	1.769	56	185	2.010	93	6.75%	0		0	0	0	
_	2041	2042	1,228	598	0	131	1,957	1,767	57	126	1,950	0	6.75%	0		0	0	7	
	2042	2043	1,265	616	0	126	2,007	1,760	59	122	1,941	0	6.75%	7	66	3	0	76	
	2043	2044	1,301	634	0	121	2,056	1,758	60	80	1,898	0	6.75%	76	158	10	0	244	
	2044	2045	1,339	653	0	115	2,107	1,752	62	50	1,864	0	6.75%	244	243	25	0	512	
	2045	2046	1,376	670	0	109	2,155	1,748	63	50	1,861	0	6.75%	512	294	44	0	850	
	2046	2047	1,420	692	0	102	2,214	1,736	65	50	1,851	0	6.75%	850	363	69	0	1,282	
	2047	2048	1,455	709	0	96	2,260	1,744	67	50	1,861	0	6.75%	1,282	399	100	0	1,781	
	2048	2049	1,501	731	0	90	2,322	1,746	68	50	1,864	0	6.75%	1,781	458	135	0	2,374	
	2049	2050	1,546	753	0	84	2,383	1,747	70	50	1,867	0	6.75%	2,374	516	177	0	3,067	
	2050	2051	1,592	775	0	78	2,445	1,751	72	50	1,873	0	6.75%	3,067	572	226	0	3,865	
	2051	2052	1,639	799	0	72	2,510	1,758	74	50	1,882	0	6.75%	3,865	628	282	0	4,775	
	2052	2053	1,688	822	0	67	2,577	1,769	75	50	1,894	0	6.75%	4,775	683	345	0	5,803	
	2053	2054	1,737	846	0	61	2,644	1,786	77	50	1,913	0	6.75%	5,803	731	416	0	6,950	
	2054	2055	1,788	871	0	56	2,715	1,810	79	50	1,939	0	6.75%	6,950	776	495	0	8,221	
	2055	2056	1,840	897	0	51	2,788	1,841	81	233	2,155	0	6.75%	8,221	633	576	0	9,430	
	2056	2057	1,895	923	0	46	2,864	1,876	83	217	2,176	0	6.75%	9,430	688	659	0	10,777	
	2057	2058	1,951	951	0	41	2,943	1,916	85	203	2,204	0	6.75%	10,777	739	752	0	12,268	
	2058	2059	2,009	979	0	37	3,025	1,962	87	236	2,285	0	6.75%	12,268	740	853	0	13,861	
	2059	2060	2,069	1,008	0	33	3,110	2,012	90	0	2,102	0	6.75%	13,861	1,008	969	0	15,838	
	2060	2061	2,131	1,038	0	29	3,198	2,067	92	0	2,159	0	6.75%	15,838	1,039	1,104	0	17,981	
	2061	2062	2,194	1,069	0	25	3,288	2,126	94	0	2,220	0	6.75%	17,981	1,068	1,249	0	20,298	
	2062	2063	2,260	1,101	0	22	3,383	2,190	97	0	2,287	0	6.75%	20,298	1,096	1,407	0	22,801	
	2063	2064	2,327	1,134	0	19	3,480	2,257	99	0	2,356	0	6.75%	22,801	1,124	1,576	0	25,501	

### SECTION IV – GASB 67 ACCOUNTING INFORMATION

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

As directed by the System, the asset basis for the date of depletion projection is the System's net assets (the gross assets less the Pension Obligation Bond proceeds). On this basis, net assets are exhausted in the 2014-2015 fiscal year and no projection needed to be performed, as the tax-free municipal bond index applies in all years, and is thus the single equivalent interest rate that is used as the discount rate in the determination of the Total Pension Liability.

## GASB 67 Projection as of July 1, 2013

As this is the first year of GASB 67 accounting, a projection to determine the GASB 67 date of depletion, if any, should be 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. However, as directed by the System, the asset basis for the date of depletion projection is the System's net assets. On this basis, net assets are exhausted in the 2014-2015 fiscal year and no projection needed to be performed. The tax free municipal bond index of 4.63% as of June 30, 2013 was used as the discount rate in the determination of the Total Pension Liability as of June 30, 2013.

#### **SECTION IV - GASB 67 ACCOUNTING INFORMATION**

#### **B. Net Pension Liability**

Net Pension Liability	<u>June 30, 2014</u>
Total pension liability	\$30,219,517,000
Fiduciary net position	127,488,000
Net pension liability	30,092,029,000
Fiduciary net position as a % of total pension liability	0.42%
Covered payroll	\$3,489,096,000
Net pension liability as a % of covered payroll	862.46%

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 IX and was then projected forward to June 30, 2014. There have been no 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 employees. 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 plans'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.

	June 30, 2013	June 30, 2014
Discount rate	4.63%	4.29%
Long-term expected rate of return net of investment expense	6.40%	6.75%
Municipal bond rate *	4.63%	4.29%

<sup>\*</sup> Bond Buyer General Obligation 20-Bond Municipal Bond Index

## **SECTION IV - GASB 67 ACCOUNTING INFORMATION**

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

	Basic System	System Administered	
	<u>Benefits</u>	Benefits	<u>Total</u>
1. Projected Benefits Payable to Retirees and Beneficiairies			
Retirees	\$16,292,522,000	\$1,491,828,000	\$17,784,350,000
Disabled Members	1,162,002,000	643,364,000	1,805,366,000
Beneficiaries	417,041,000	177,951,000	594,992,000
Total	17,871,565,000	2,313,143,000	20,184,708,000
2. Projected Benefits Payable to Vested Terminated Members	1,202,562,000	103,834,000	1,306,396,000
3. Actuarial Accrued Liability for Active Members	8,094,900,000	557,675,000	8,652,575,000
4. Return of Contributions due to former Members	75,838,000	0	75,838,000
5. Total Pension Liability as of June 30, 2014: (1) + (2) + (3) + (4)	\$27,244,865,000	\$2,974,652,000	\$30,219,517,000

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

### **SECTION IV - GASB 67 ACCOUNTING INFORMATION**

#### D. Changes in Net Pension Liability

-	Increase (Decrease)		
Changes in Net Pension Liability	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2013	\$28,941,368,000	\$701,361,000	\$28,240,007,000
Changes for the year:	440,400,000		440 402 000
Service cost Interest on total pension liability	419,183,000 1,321,478,000		419,183,000 1,321,478,000
Effect of plan changes	0		0
Effect of economic/demographic (gains) or losses	(61,855,000)		(61,855,000)
Effect of assumptions changes or inputs	1,198,308,000		1,198,308,000
Benefit payments	(1,598,965,000)	(1,598,965,000)	0
Administrative expenses		(29,530,000)	29,530,000
Other expenses		(25,875,000)	25,875,000
Cost of bonds		(192,947,000)	192,947,000
Member contributions		359,862,000	(359,862,000)
Net investment income		253,558,000	(253,558,000)
Employer contributions		660,024,000	(660,024,000)
Balances as of June 30, 2014	\$30,219,517,000	\$127,488,000	\$30,092,029,000

### E. Sensitivity Analysis

The following presents the net pension liability of PRGERS, calculated using the discount rate of 4.29%, 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 (3.29%) or 1 percentage point higher (5.29%) than the current rate.

	1%	Current	1%	
	Decrease	Discount Rate	Increase	
	3.29%	4.29%	5.29%	
Total pension liability	\$34,271,842,000	\$30,219,517,000	\$26,863,784,000	
Fiduciary net position	127,488,000	127,488,000	127,488,000	
Net pension liability	34,144,354,000	30,092,029,000	26,736,296,000	

### **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	\$9,945,982,000
2. Annual Pension Cost for Fiscal Year 2013 - 2014	1,637,204,000
3. Fiscal Year 2013 - 2014 Employer Contribution	660,024,000
4. Net Pension Obligation as of June 30, 2014: (1) + (2) - (3)	\$10,923,162,000

## **B. Schedule of Employer Contributions**

Year	_Actual	Annual	
Ended	Employer	Required	Percent
<u>June 30</u>	<u>Contribution</u>	<u>Contribution</u>	<u>Contributed</u>
2014	\$660,024,000	\$1,822,675,000	36.21%
2013	637,576,000	2,192,821,000	29.08
2012	589,767,000	2,019,467,000	29.20
2011	701,399,000	1,734,979,000	40.43
2010	531,136,000	1,459,774,000	36.38
2009	595,863,000	1,258,695,000	47.34
2008	662,275,000	1,191,275,000	55.59

### **SECTION VI - GASB 45 ACCOUNTING INFORMATION**

## A. Benefit Obligations

1. Projected Benefits Payable to Retirees and Beneficiaries:

Retirees	\$1,247,929,000
Disabled Members	190,546,000
Beneficiaries	<u>0</u>
Total	1,438,475,000

2. Projected Benefits Payable to Vested Terminated Members: 0

3. Actuarial Accrued Liability for Active Members 0

4. Total Actuarial Accrued Liability as of June 30, 2014: 1,438,475,000

5. Total Employer Normal Cost as of December 31, 2014:

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

#### <u>SECTION VI - GASB 45 ACCOUNTING INFORMATION</u>

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

1. Actuarial Accrued Liability as of June 30, 2014: \$1,438,475,000

2. Actuarial Value of Assets as of June 30, 2014:

3. Unfunded Actuarial Accrued Liability as of June 30, 2014: (1) - (2) 1,438,475,000

4. Amortization Period in years

5. Amortization Factor at beginning of year 14.0607

6. Amortization Amount Payable as of December 31, 2014:

[ (3) / (5) ] \* (1.0310 ^ 0.5 ) \$103,878,000

# 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: 103,878,000

3. Annual Required Contribution\*: (1) + (2) 103,878,000

\* Assumes payments made throughout the year.

# **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	\$223,317,000
2. Annual OPEB Cost for Fiscal Year 2013 - 2014	82,222,000
3. Fiscal Year 2013 - 2014 Employer Contribution	102,085,000
4. Net OPEB Obligation as of June 30, 2014: (1) + (2) - (3)	\$203,454,000

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

Annual Required Contribution	\$103,878,000
2. Interest on Net OPEB Obligation as of June 30, 2014	6,307,000
3. Adjustment to the Annual Required Contribution	14,918,000
4. Fiscal Year 2014 - 2015 Annual OPEB Cost: (1) + (2) - (3)	\$95,267,000

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

The above Net OPEB Obligation and Annual OPEB Cost are determined as if PRGERS was a single employer plan instead of a cost-sharing multiple employer plan. See Section I for more information.

## **SECTION VI - GASB 45 ACCOUNTING INFORMATION**

## F. Schedule of Employer Contributions

Year	Actual	Annual	
Ended	Employer	Required	Percent
<u>June 30</u>	<b>Contribution</b>	<u>Contribution</u>	<b>Contributed</b>
2015 *	\$109,178,000	\$103,878,000	105.10%
2014	102,085,000	88,508,000	115.34
2013	91,823,000	154,999,000	59.24
2012	94,664,000	133,654,000	70.83
2011	93,851,000	129,395,000	72.53
2010	88,599,000	128,294,000	69.06
2009	85,385,000	111,683,000	76.45

<sup>\*</sup> Actual Employer Contribution for the year ended June 30, 2015 assumes:

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

<sup>-</sup> contribution of \$109.178 million for Special Law OPEB benefits.

# **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	\$1,438,475,000	\$1,438,475,000	0.0%	\$3,489,096,000	41.2%
06/30/2013	0	1,482,879,000	1,482,879,000	0.0%	3,489,096,000	42.5%
06/30/2012	0	2,120,970,000	2,120,970,000	0.0%	3,570,339,000	59.4%
06/30/2011	0	1,758,389,000	1,758,389,000	0.0%	3,666,402,000	48.0%
06/30/2010	0	1,699,373,000	1,699,373,000	0.0%	3,818,332,000	44.5%
06/30/2009	0	1,633,159,000	1,633,159,000	0.0%	4,292,552,000	38.0%

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

# **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: 18 years closed (beginning July 1, 2014), level dollar

Remaining Amortization Period: 18 years
Asset valuation method: not applicable

Assumptions:

Investment rate of return 3.10%

Projected Salary Increases not applicable Projected Payroll Growth Inflation not applicable Cost of Living Adjustments not applicable

#### **SECTION VII - CENSUS DATA**

#### A. Summary of Member Data as of July 1, 2013:

	Act 447	Act 1	System 2000	Total
Active Members				
Count	19,281	42,882	63,508	125,671
Average Age	53.9	48.7	41.5	45.9
Average Salary	\$33,106	\$29,871	\$24,719	\$27,764
Average Creditable Service	26.6	18.4	7.7	14.3
Retired Members				
Count	86,925	7,470	N/A	94,395
Average Age	68.8	62.2	N/A	68.3
Average Monthly Basic System Benefit	\$1,119	\$361	N/A	\$1,059
Average Monthly System Administered Benefit	\$75	\$34	N/A	\$72
Disabled Members				
Count	14,933	1,680	36	16,649
Average Age	69.0	63.9	52.1	68.4
Average Monthly Basic System Benefit	\$434	\$447	\$559	\$436
Average Monthly System Administered Benefit	\$199	\$66	\$2	\$185
Beneficiaries in payment				
Count	13,362	91	N/A	13,453
Average Age	73.1	65.7	N/A	73.0
Average Monthly Basic System Benefit	\$227	\$309	N/A	\$228
Average Monthly System Administered Benefit	\$98	\$139	N/A	\$99

Basic System Benefit and System Administered Benefit amounts shown above are for pension benefits, including minimum benefits up to \$400 per month and COLAs, and excludes benefits payable at a later date to Law 70 Section 4B retirees. Special Law "bonus" benefits are not reflected. In addition, the increases in the minimum benefit to \$500 per month under Act 3 are not reflected.

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

This summary of plan provisions 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.

Act 3 of 2013, in conjunction with other recent funding and design changes, provided for a comprehensive pension redesign of PRGERS. This summary details the provisions under Act 3.

Certain provisions are different for the three groups of members who entered PRGERS prior to July 1, 2013 as described below.

- Act 447 members are generally those members hired before April 1, 1990.
- Act 1 members are generally those members hired on or after April 1, 1990 and on or before December 31, 1999.
- System 2000 members are generally those members hired on or after January 1, 2000 and on or before June 30, 2013.

## 1. Type of Plan

The System is a contributory, hybrid defined benefit plan.

### 2. Effective Date

The System was established in 1951 by Act 447 to be effective January 1, 1952. The plan was last amended under Act 3, approved April 4, 2013.

#### 3. Eligibility for Membership

Members of the Employees Retirement System of the Government of Puerto Rico and its Instrumentalities include all regular full-time and non-municipal temporary employees who are not contributing to other Retirement Systems (Articles 1-104 and 1-105). Employees include those in the following categories:

- Police of Puerto Rico.
- Firefighters of Puerto Rico,
- Elective officers of the People of Puerto Rico and the employees of the Legislature,
- Officers and employees of the Government of Puerto Rico,

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

- Officers and employees of public enterprises,
- Officers and employees, including mayors, of the municipalities, and
- Irregular personnel fulfilling the requirements of regular employee.

Membership is mandatory, except for the Governor of Puerto Rico, Government Secretaries, heads of public agencies and instrumentalities, the Governor's aides, gubernatorial appointees of commissions and boards, members of the Legislature, the Controller of Puerto Rico, the employees of the Agricultural Extension Service of the U.P.R., the Ombudsman and the Commonwealth Election Board employees (Article 1-105). In addition, membership is optional for eligible employees while working and residing outside the territorial limits of the Commonwealth of Puerto Rico (Act 112 of 2004).

### 4. Definitions

- a. <u>Fiscal Year</u>: A Fiscal Year is a 12-month period beginning on July 1 and ending on June 30 (Article 1-104).
- b. <u>General Fund</u>: The General Expenses Budget of the Government of the Commonwealth of Puerto Rico.
- c. <u>Government of Puerto Rico or Government</u>: The Government of the Commonwealth of Puerto Rico, its departments, divisions, bureaus, offices, agencies and dependencies (Article 1-104).
- d. <u>Public Enterprise</u>: Any government instrumentality of the People of Puerto Rico (Article 1-104).
- e. Municipality: The Municipality of San Juan (Article 1-104).
- f. <u>Employer</u>: The Government of Puerto Rico, any public enterprise that has elected to participate in the System, or any municipality that has elected to participate in the System (Articles 1-104 and 1-110).
- g. <u>Employee</u>: Any officer or employee of the Employer regularly employed on a full time basis (Article 1-104).

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h. <u>Creditable Service for Act 447 members</u>: The years and months of plan participation, during which contributions have been made, beginning on the later of date of hire or January 1, 1952 and ending on date of separation from service. For purposes of calculating Creditable Service, the following schedule shall apply:

Service During a Fiscal Year	Creditable Service Earned
15 days during the same month	1 month
2 months and 15 days to 5 months and 14 days	½ year
5 months and 15 days to 8 months and 14 days	¾ year
8 months and 15 days to 12 months	1 year

Note: All of the days have to be during the same month.

Months in which less than 15 days of service are rendered do not count towards Creditable Service. (Article 1-106)

In general, Creditable Service may be earned for any period of employment during which no contributions were made if Accumulated Contributions for such periods are paid to the System. The same rules hold for rehired employees who previously received a refund of Accumulated Contributions at separation. (Article 1-106)

Creditable Service also includes purchased service, if any (Article 1-106).

i. <u>Creditable Service for Act 1 members</u>: The years and completed months of plan participation, during which contributions have been made, beginning on date of hire and ending on date of separation from service. (Articles 1-106 and 2-109) For purposes of calculating Creditable Service, the following schedule shall apply:

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

Service During a Fiscal Year	Creditable Service Earned
Less than 3 months	None
3 to 5 months	½ year
6 to 8 months	¾ year
9 months or more	1 year

In general, Creditable Service may be earned for any period of employment during which no contributions were made if Accumulated Contributions for such periods are paid to the System. The same rules hold for rehired employees who previously received a refund of Accumulated Contributions at separation. (Article 1-106)

Creditable Service also includes purchased service, if any (Article 1-106).

- j. <u>Compensation</u>: The gross cash compensation, excluding bonuses and overtime, upon which contributions by a Member to the Fund are based (Article 1-104).
- k. <u>Average Compensation for Act 447 members</u>: The average of the 3 highest years (36 highest months) of compensation that the participant has received for Creditable Service (Article 1-104).
- I. <u>Average Compensation for Act 1 members</u>: The average of the last 5 years of compensation that the participant has received for Creditable Service. If annual compensation in the averaging period exceeds by more than 10% the annual compensation in the immediately preceding year, the compensation in excess of said 10% shall not be included in the calculation of Average Compensation. (Article 2-108)
- m. <u>Contributions</u>: The amount deducted from the compensation of a Member and the employer (Section 781).
- n. <u>Regular Interest</u>: The interest rate as prescribed by the Board of Trustees (Article 1-104). The rate of 2.50% has always been in effect.
- o. <u>Accumulated Contributions</u>: The sum of all amounts deducted from the compensation of a Member prior to July 1, 2013 with Regular Interest (Article 1-104).

# <u>SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS</u> <u>AS OF JUNE 30, 2014</u>

p. <u>Actuarial Equivalent</u>: 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.

For purposes of converting the Defined Contribution Hybrid Contribution Account to a lifetime annuity, the current factors adopted by the Board are the 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.

- q. <u>Public Officers in High-Risk Positions</u>: The Commonwealth of Puerto Rico Police, the Municipal Police, the Commonwealth Firefighter Corps, the Municipal Firefighter Corps, and the Custody Officers Corps.
- r. <u>Social Security Retirement Age (SSRA)</u>: The Social Security Retirement Age varies based on the year of birth as indicated in the table below.

	1	
Year of Birth	Social Security Retirement Age	
1937 or earlier	65 years	
1938	65 years and 2 months	
1939	65 years and 4 months	
1940	65 years and 6 months	
1941	65 years and 8 months	
1942	65 years and 10 months	
1943 to 1954	66 years	
1955	66 years and 2 months	
1956	66 years and 4 months	
1957	66 years and 6 months	
1958	66 years and 8 months	
1959	66 years and 10 months	
1960 and later	67 years	

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- s. Retirement Savings Account: The individual retirement account established for each member of System 2000 (Article 1-104). Each member has a nonforfeitable right to the value of his Retirement Savings Account (Article 3-107).
- t. <u>Credits to Retirement Savings Account</u>: The credits to the retirement savings account include (1) any initial transfer balance for transferred participants, (2) contributions of the members to System 2000, and (3) the investment yield for each semester of the fiscal year based on the investment alternatives elected by the member (Article 3-107).
- u. <u>Investment Alternatives for Retirement Savings Account</u>: System 2000 members could choose to allocate their Retirement Savings Account, in multiples of 10%, to the following investment options prior to July 1, 2013. Changes in allocation could have been made annually, effective each July 1.
  - i. Fixed income The yield is equal to the average monthly yield of the Two-Year Constant Maturity Treasuries during each semester of the fiscal year.
  - ii. System's investment portfolio The yield is equal to 90% (75% prior to July 1, 2004) of the investment portfolio yield of the System during each semester of each fiscal year minus management fees such as fees payable to administrators of the portfolio.
  - iii. Other alternatives adopted by the Board of the System.
- v. <u>Defined Contribution Hybrid Contribution Account</u>: The individual account established for each active member as of July 1, 2013 and for each future member thereafter. Each member has a nonforfeitable right to their contributions to the Defined Contribution Hybrid Contribution Account and, for the System 2000 members, the initial transfer of their Retirement Savings Account as of June 30, 2013.
- w. Credits to Defined Contribution Hybrid Contribution Account: The credits to the retirement savings account include (1) the Retirement Savings Account as of June 30, 2013 for System 2000 members, (2) contributions by all members after June 30, 2013 to PRGERS, and (3) 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 portfolio yield of the System during each semester of each fiscal year minus management fees such

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as, but not limited to, fees payable to administrator of the portfolio, safekeeping of securities and investment counseling.

5. Coordination with Social Security for Act 447 members: Except for police, mayors and employees of the Agricultural Extension Service of the U.P.R., participants may elect to coordinate coverage under the System with Federal Social Security by selecting the lower of two contribution options. Those participants selecting Option (1), the Coordination Plan, are subject to a benefit recalculation upon attainment of Social Security Retirement Age. Those participants selecting Option (2), the Supplementation Plan, will continue to receive the same benefits for life, without any adjustments at SSRA. At any time up to retirement, participants may change from Option (1) to Option (2) by making a contribution including interest to the System, retroactive to the later of July 1, 1968 or the date of plan entry, that will bring their career Accumulated Contributions to the Option (2) level. All police, mayors and employees of the Agricultural Extension Service of the U.P.R. are covered under Option (2), the Supplementation Plan.

## 6. Retirement Benefits

a. <u>Eligibility for Act 447 members</u>: Act 447 members who were eligible to retire as of June 30, 2013 would continue to be eligible to retire at any time. Prior to July 1, 2013, Act 447 members could retire upon (1) attainment of age 55 with 25 years of Creditable Service, (2) attainment of age 58 with 10 years of Credited Service, (3) any age with 30 years of Creditable Service, (4) for Public Officers in High Risk Positions, attainment of age 50 with 25 years of Creditable Service, and (5), for Mayors, attainment of age 50 with 8 years of Creditable Service as a Mayor. In addition, Act 447 members who would attain 30 years of Creditable Service by December 31, 2013 would be eligible to retire at any time.

Act 447 members who were not eligible to retire as of June 30, 2013 and did not attain 30 years of Creditable Service by December 31, 2013 would be eligible to retire upon attainment of the retirement eligibility age shown in the table below with 10 years of Creditable Service.

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Date of Birth	Attained Age as of June 30, 2013	Retirement Eligibility Age
July 1, 1957 or later	55 or less	61
July 1, 1956 to June 30, 1957	56	60
Before July 1, 1956	57 and up	59

In addition to the requirements in the table above, Act 447 Public Officers in High Risk Positions who were not eligible to retire as of June 30, 2013 and did not attain 30 years of Creditable Service by December 31, 2013 are eligible to retire directly from active service upon the attainment of age 55 with 30 years of Creditable Service.

b. Eligibility for Act 1 members: Act 1 members who were eligible to retire as of June 30, 2013 would continue to be eligible to retire at any time. Prior to July 1, 2013, Act 1 members could retire upon (1) attainment of age 55 with 25 years of Creditable Service, (2) attainment of age 65 with 10 years of Credited Service, (3) for Public Officers in High Risk Positions, any age with 30 years of Creditable Service, and (4) for Mayors, attainment of age 50 with 8 years of Creditable Service as a Mayor.

Act 1 members who were not eligible to retire as of June 30, 2013 would be eligible to retire upon attainment of age 65 with 10 years of Creditable Service. In addition, Act 1 Public Officers in High Risk Positions who were not eligible to retire as of June 30, 2013 are eligible to retire directly from active service upon the attainment of age 55 with 30 years of Creditable Service.

c. <u>Eligibility for System 2000 members</u>: System 2000 members who were eligible to retire as of June 30, 2013 would continue to be eligible to retire at any time. Prior to July 1, 2013, System 2000 members could retire upon attainment of age 55 for Public Officers in High Risk Positions and attainment of age 60 otherwise.

System 2000 members who were not eligible to retire as of June 30, 2013 would be eligible to retire upon attainment of age 55 for Public Officers in High Risk Positions and upon attainment of the retirement eligibility age shown in the table below otherwise.

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Date of Birth	Attained Age as of June 30, 2013	Retirement Eligibility Age
July 1, 1957 or later	55 or less	65
July 1, 1956 to June 30, 1957	56	64
July 1, 1955 to June 30, 1956	57	63
July 1, 1954 to June 30, 1955	58	62
Before July 1, 1954	59 and up	61

- d. <u>Eligibility for members hired after June 30, 2013</u>: Attainment of age 58 if a Public Officer in a High Risk Position and attainment of age 67 otherwise.
- e. <u>Benefit</u>: An annuity payable for the lifetime of the member equal to the annuitized value of the balance in the Defined Contribution Hybrid Contribution Account at the time of retirement, plus, for Act 447 and Act 1 members, the Accrued Benefit determined as of June 30, 2013. If the balance in the Defined Contribution Hybrid Contribution Account is \$10,000 or less, the balance in the Defined Contribution Hybrid Contribution Account shall be paid as a lump sum instead of as an annuity.
- f. Accrued Benefit as of June 30, 2013 for Act 447 members: The accrued benefit as of June 30, 2013 shall be determined based on the Average Compensation for Act 447 members, the years of Creditable Service, and the attained age of the member all as of June 30, 2013. For Act 447 Mayors, the Highest Compensation as a Mayor is determined as of June 30, 2013.

If the Act 447 member had at least 30 years of Creditable Service as of June 30, 2013, the accrued benefit equals 65% of Average Compensation if the member was under age 55 as of June 30, 2013 or 75% of Average Compensation if the member was at least age 55 as of June 30, 2013. For participants selecting the Coordination Plan, the benefit is re-calculated at SSRA as 1.5% of Average Compensation up to \$6,600 multiplied by years of Creditable Service, up to 30 years, plus 65% (75% if member was at least age 55 as of June 30, 2013) of Average Compensation in excess of \$6,600.

If the Act 447 member had less than 30 years of Creditable Service as of June 30, 2013, and attains 30 years of Creditable Service by December 31, 2013, the accrued benefit equals 55% of Average Compensation if the member was under

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age 55 as of June 30, 2013 or 60% of Average Compensation if the member was at least age 55 as of June 30, 2013. For participants selecting the Coordination Plan, the benefit is re-calculated at SSRA as 1.5% of Average Compensation up to \$6,600 multiplied by years of Creditable Service, up to 30 years, plus 55% (60% if member was at least age 55 as of June 30, 2013) of Average Compensation in excess of \$6,600. Member contributions received from Act 447 members eligible for this transitory benefit during the period beginning July 1, 2013 and ending upon the attainment of 30 years of Creditable Service are considered pre-July 1, 2013 contributions; the contributions to the Defined Contribution Hybrid Contribution Account begin after the member attains 30 years of Creditable Service.

If the Act 447 member had less than 30 years of Creditable Service as of December 31, 2013, the accrued benefit equals 1.5% of Average Compensation multiplied by years of Creditable Service up to 20 years, plus 2% of Average Compensation multiplied by years of Creditable Service in excess of 20 years. Maximum benefit is 75% of Average Compensation. Except for Commonwealth Police and Commonwealth Firefighters, the benefit is actuarially reduced for each year payment commences prior to age 58. For participants selecting the Coordination Plan, the basic benefit is re-calculated at SSRA as 1% of Average Compensation up to \$6,600 multiplied by years of Creditable Service up to 20 years, plus 1.5% of Average Compensation up to \$6,600 multiplied by years of Creditable Service in excess of 20 years, plus 1.5% of Average Compensation in excess of \$6,600 multiplied by years of Creditable Service up to 20 years, plus 2.0% of Average Compensation in excess of \$6,600 multiplied by years of Creditable Service in excess of 20 years. Except for Police and Firefighters, the benefit is actuarially reduced for each year payment commences prior to age 58.

For Act 447 Mayors with at least 8 years of Creditable Service as a mayor, the accrued benefit will not be less than 5% of Highest Compensation as a Mayor for each year of Creditable Service as a Mayor up to 10 years, plus 1.5% of Highest Compensation as Mayor for each year of non-Mayoral Creditable Service up to 20 years, plus 2.0% of Highest Compensation as Mayor for each year of non-Mayoral Creditable Service in excess of 20 years. Non-Mayoral Creditable Service includes service earned as a Mayor in excess of 10 years. Maximum benefit is 90% of Highest Compensation as a Mayor.

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g. Accrued Benefit as of June 30, 2013 for Act 1 members: The accrued benefit as of June 30, 2013 shall be determined based on the Average Compensation for Act 1 members, the years of Creditable Service, and the attained age of the member all as of June 30, 2013. For Act 1 Mayors, the Highest Compensation as a Mayor is determined as of June 30, 2013.

If the Act 1 Commonwealth Police or Commonwealth Firefighter had at least 30 years of Creditable Service as of June 30, 2013, the accrued benefit equals 65% of Average Compensation if the member was under age 55 as of June 30, 2013 or 75% of Average Compensation if the member was at least age 55 as of June 30, 2013.

For all other Act 1 members, the accrued benefit equals 1.5% of Average Compensation multiplied by years of Creditable Service. The benefit is actuarially reduced for each year payment commences prior to age 65.

For Act 1 Mayors with at least 8 years of Creditable Service as a mayor, the accrued benefit will not be less than 5% of Highest Compensation as a Mayor for each year of Creditable Service as a Mayor up to 10 years, plus 1.5% of Highest Compensation as Mayor for each year of non-Mayoral Creditable Service up to 20 years, plus 2.0% of Highest Compensation as Mayor for each year of non-Mayoral Creditable Service in excess of 20 years. Non-Mayoral Creditable Service includes service earned as a Mayor in excess of 10 years. Maximum benefit is 90% of Highest Compensation as a Mayor.

h. <u>Compulsory Retirement</u>: All Act 447 and Act 1 Public Officers in High Risk Positions must retire upon attainment of age 58 and 30 years of creditable service. A two year extension may be requested by the member from the Superintendent of the Puerto Rico Police, the Chief of the Firefighter Corps, or supervising authority as applicable.

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#### 7. Termination Benefits

#### a. Lump Sum Withdrawal

<u>Eligibility</u>: A Member is eligible upon termination of service prior to 5 years of service or if the balance in the Defined Contribution Hybrid Contribution Account is \$10,000 or less.

<u>Benefit</u>: The benefit equals a lump sum payment of the balance in the Defined Contribution Hybrid Contribution Account as of the date of the permanent separation of service.

## b. <u>Deferred Retirement</u>

<u>Eligibility</u>: A Member is eligible upon termination of service with 5 or more years of service (10 years of Creditable Service for Act 447 and Act 1 members) prior to the applicable retirement eligibility, provided the member has not taken a lump sum withdrawal of the Accumulated Contributions and the Defined Contribution Hybrid Contribution Account.

<u>Benefit</u>: An annuity payable for the lifetime of the member commencing at the applicable retirement eligibility age equal to the annuitized value of the balance in the Defined Contribution Hybrid Contribution Account at the time of retirement, plus, for Act 447 and Act 1 members, the Accrued Benefit determined as of June 30, 2013.

#### 8. Death Benefits

#### a. Pre-retirement Death Benefit

Eligibility: Any current non-retired member is eligible.

<u>Benefit</u>: A refund of the Defined Contribution Hybrid Contribution Account, plus the Accumulated Contributions for Act 447 and Act 1 members.

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## b. High-Risk Death Benefit under Act 127

<u>Eligibility</u>: Police, firefighters, and other employees in specified high-risk positions who die in the line of work due to reasons specified in Act 127 of 1958 (as amended).

<u>Spouse's Benefit</u>: 50% of the participant's Compensation at date of death, payable as an annuity until death or remarriage (Act 127 of 1958 as amended).

<u>Children's Benefit</u>: 50% of the participant's Compensation at date of death, payable as an annuity, allocated pro-rata among eligible children. The annuity is payable for life for a disabled child, until age 18 for a non-disabled child not pursuing studies, and until age 25 for a non-disabled child who is pursuing studies. (Act 127 of 1958 as amended)

Benefit if no spouse or children: The parents of the member shall each receive 50% of the participant's Compensation at date of death, payable as an annuity for life. (Act 127 of 1958 as amended)

<u>Post-death increases</u>: Effective July 1, 1996 and subsequently every three years, the above death benefits are increased by 3% provided that the beneficiary(ies) had been receiving payments for at least three years. (Act 127 of 1958 as amended)

The cost of these benefits is paid by the General Fund (Act 127 of 1958 as amended).

### c. Post-retirement Death Benefit for Members who retired prior to July 1, 2013

<u>Eligibility</u>: Any retiree or disabled member receiving a monthly benefit who has not elected a reversionary annuity and whose benefits commenced prior to July 1, 2013.

Benefit: The benefit is as follows (Law 105 as amended by Law 4):

(i) For those married or with dependent children at the time of death, the annual income to a widow, or widower or dependent children is equal to 60% (50% if

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

in the Coordination Plan - 30% prior to January 1, 2004) of the retirement benefit payable for life for a surviving spouse and/or disabled children and payable until age 18 (age 25 if pursuing studies) for non-disabled children. If in the Coordination Plan, the benefit to the surviving spouse does not begin until the spouse's attainment of age 60 and the surviving spouse must have been married to the member for at least 10 years to be eligible for this benefit. The increase in the percentage from 30% to 50% if in the Coordination Plan is paid by the General Fund for former government employees or by the public enterprise or municipality for their former employees (Act 158 of 2003).

(ii) The benefit, when there is no relation as stated above, is equal to the remaining balance of Accumulated Contributions at the time of retirement after the deduction of lifetime annual income paid and is payable to a beneficiary or to the Member's estate. In no case shall the benefit be less than \$1,000. Either the General Fund for former government employees or the public enterprise or municipality for their former employees pays the difference, up to \$250, between (1) the Accumulated Contributions less the lifetime annual income paid and (2) \$1,000. The System pays for the rest. (Article 2-113 and Act 524 of 2004)

#### d. Post-retirement Death Benefit for Members who retired after June 30, 2013

<u>Eligibility</u>: Any retiree or disabled member who began receiving a monthly benefit after June 30, 2013.

<u>Benefit</u>: 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.

For all members, the excess, if any, of the Defined Contribution Hybrid Contribution Account, plus the Accumulated Contributions for Act 447 and Act 1 members, at the time of retirement over the total annuity payments paid to the member and any beneficiary per the terms of the optional form of payment shall be payable to a beneficiary or the Member's estate.

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e. Beneficiaries receiving occupational death benefits as of June 30, 2013 continue to be eligible to receive such benefits.

### 9. Disability Benefits

### a. Disability

Eligibility: All members are eligible upon the occurrence of disability.

<u>Benefit</u>: The balance of the Defined Contribution Hybrid Contribution Account payable as lump sum distribution, an immediate annuity or a deferred annuity at the election of the participant. Act 447 and Act 1 members remain eligible to receive the accrued benefit as of June 30, 2013 commencing at the applicable retirement eligibility age.

## b. High Risk Disability under Act 127

<u>Eligibility</u>: Police, firefighters, and other employees in specified high-risk positions who are disabled in the line of work due to reasons specified in Act 127 of 1958 (as amended).

<u>Benefit</u>: 80% (100% for Act 447 members) of Compensation as of date of disability, payable as an annuity. If the member dies while still disabled, this annuity benefit continues to his beneficiaries. Beneficiaries include the surviving spouse and/or disabled children (for life), non-disabled children until age 18 (age 25 if pursuing studies), and the parents if no other beneficiaries. Effective July 1, 1996 and subsequently every three years, the disability benefit is increased by 3% provided that the member (or beneficiary) had been receiving payments for at least three years. (Act 127 of 1958 as amended) The cost of these benefits is paid by the General Fund.

c. Members who qualified for occupational or non-occupational disability benefits as of June 30, 2013 continue to be eligible to receive such benefits.

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#### 10. Minimum Benefits

- a. <u>Past Ad hoc Increases</u>: The legislature, from time to time, increases pensions for certain retirees as described in Act 124 approved on June 8, 1973 and Act 23 approved on September 23, 1983. The benefits are paid 50% by the General Fund and 50% by the System.
- b. Minimum Benefit for members who retired before July 1, 2013: The minimum monthly lifetime income for members who retired or become disabled before July 1, 2013 is \$500 per month effective July 1, 2013 (\$400 per month effective July 1, 2007 and \$300 per month up to June 30, 2007). The increase in the minimum monthly benefit from \$200 per month to \$300 per month is paid by the General Fund for former government employees or by the public enterprise or municipality for their former employees. The increase in the minimum monthly benefit from \$300 per month to \$400 per month is to be paid by the System for former government employees or by the public enterprise or municipality for their former employees. (Act 156 of 2003, Act 35 of 2007, and Act 3 of 2013.)
- c. <u>Coordination Plan Minimum Benefit</u>: A minimum monthly benefit is payable upon attainment of SSRA such that the benefit, when added to the Social Security Benefit, is not less than the benefit payable prior to SSRA.
- 11. 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 10 of 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 35). 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 35). The COLAs granted in 1992 to all retirees and in 1998 to retirees who are former government or municipal employees shall be paid by the System. All other COLAs granted in 1995 and later shall be paid by the General Fund for former government employees or by the public enterprise or municipality for their former employees. (Various Acts)

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12. 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 July 1, 2013. This benefit is paid from the Supplemental Contributions (see item 14c) received from the General Fund for former government employees or by the public corporation or municipality for their former employees. (Act 483 as amended by Act 3)

### 13. Special "Bonus" Benefits:

- a. <u>Christmas Bonus</u>: An annual bonus of \$200 for each retiree, beneficiary, and disabled member paid in December provided the member retired prior to July 1, 2013. This benefit is paid from the Supplemental Contributions (see item 14c) received from the General Fund for former government employees or by the public corporation or municipality for their former employees. (Act 144 as amended by Act 3)
- 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 July 1, 2013. Evidence of coverage is not required. The amount is prorated if there are multiple beneficiaries. This benefit is paid from the Supplemental Contributions (see 14c) received from the General Fund for former government employees or by the public corporation or municipality for their former employees. (Act 155 as amended by Act 3)

#### 14. Contributions

a. Member Contributions: Effective July 1, 2013, contributions by members are 10% of Compensation. However, for Act 447 Members who selected the Coordination Plan, the member contributions are 7% of Compensation up to \$6,600 plus 10% of Compensation in excess of \$6,600 during the 2013-2014 fiscal year and 8.5% of Compensation up to \$6,600 plus 10% of Compensation in excess of \$6,600 during the 2014-2015 fiscal year. Members may voluntarily make additional contributions to their Defined Contribution Hybrid Contribution Account.

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Prior to July 1, 2013, contributions by Act 447 Members selecting the Coordination Plan were 5.775% of Compensation up to \$6,600 plus 8.275% of Compensation in excess of \$6,600. Contributions by all other Members were 8.275% of Compensation. System 2000 members may also have made voluntary contributions of up to 1.725% of compensation prior to July 1, 2013.

- b. Employer Contributions: Prior to July 1, 2011, employer contributions were 9.275% of Compensation. Effective July 1, 2011, employer contributions are 10.275% of Compensation. 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% of Compensation, reaching an employer contribution rate of 20.525% of Compensation effective July 1, 2020. (Article 2-116 as amended by Law 116 of 2010 and Act 3 of 2013).
- c. <u>Supplemental Contributions from the General Fund, Public Corporations, and Municipalities</u>: Effective July 1, 2013, the System will receive a supplemental contribution of \$2,000 each fiscal year for each pensioner (including beneficiaries receiving survivor benefits) who was previously benefitting as an Act 447 or Act 1 member while an active employee. This supplemental contribution will be paid by the General Fund for former government employees or by the public corporation or municipality for their former employees. (Act 3 of 2013)
- d. Additional Uniform Contribution: During the 2013-2014 fiscal year, the System will receive an Additional Uniform Contribution of \$120 million. During each fiscal year from 2014-2015 through 2032-2033, the System will receive an Additional Uniform 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, to fall below \$1 billion. The Additional Uniform Contribution will be paid by the General Fund, public corporations, and municipalities. (Act 32 of 2013 as amended)
- 15. <u>Service Purchase</u>: Prior to July 1, 2013, active members with eligible service from prior employment may elect to purchase service in PRGERS. The cost of the purchase is calculated by applying the PRGERS statutory 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% per year (6% prior to April 4,

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

2013) until 6 months after the time of the service purchase request. Any amount not covered by asset transfers from the member's prior pension fund is payable by the member (Law 10 of 1992, Law 14 of 1981, Law 122 of 2000, Laws 203 and 33 of 2007). Effective July 1, 2013, only veterans may purchase service for time spent under military leave prior to June 30, 2013. In addition, public employees in active military service are permitted to make voluntary contributions to the Defined Contribution Hybrid Contribution Account during the years of military leave.

16. Law 70 Retirement Incentive: During the 2010-2011 fiscal year, Law 70 provided for an early retirement incentive. Additional window periods occurred through December 31, 2012. Under Section 4A of Law 70, active members could terminate employment immediately and receive a bonus equal to one, three, or six months of salary (paid by the Commonwealth). Under Section 4B of Law 70, 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 for government employees and Public Corporations for their employees 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 pay the benefit after this time period. While the General Fund / Public Corporation is paying the pension benefit to the member or any surviving beneficiary, the General Fund / Public Corporation will also pay a contribution equal to the employer contribution rate (12.275% for the 2013-2014 fiscal year plus the employee contribution rate for Public Corporations (currently 10%)) of final salary to the System. The employer contribution rate applied to final salary increases as under Law 116 to a rate of 20.525% of payroll in 2020-2021 and thereafter. Under Section 4C of Law 70, active members who had at least 30 years of service could retire immediately and receive a bonus equal to six months of salary (paid by the Commonwealth). For any active employee who retired under Section 4C, the Public Corporation will pay a contribution equal to the employer contribution rate (12.275% for the 2013-2014 fiscal year, increasing to 20.525% in 2020-2021 and thereafter) plus the employee contribution rate (currently 10%) of final salary to the System for five years after retirement.

## 17. Changes in Plan Provisions since Prior Valuation

None.

## <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

<u>Investment Return</u>: 6.75% 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: 4.29% per annum

GASB 45 discount rate: 3.10% per annum

<u>Compensation Increases</u>: 3.0% per year. No compensation increases are assumed until July 1, 2017 as a result of Act 66 and the current general economy.

<u>Defined Contribution Hybrid Contribution Account</u>: Member contributions to the Defined Contribution Hybrid Contribution Account are assumed to be 10.0% of Compensation. Defined Contribution Hybrid Contribution Accounts are assumed to grow prospectively using a 5.40% annual investment return (80% of the net investment return assumption as shown above).

<u>Termination</u>: Withdrawal rates vary by employment category, age, and service.

Employment	Annual Rate of
Category	Termination
Act 447 General Employees under age 58 or less than 10 years	2.0%
of service	
Act 447 General Employees at least age 58 with at least 10	0.0
years of service	
Act 447 Public Officers in High Risk Positions under age 50 or	1.6
less than 10 years of service	
Act 447 Public Officers in High Risk Positions ages 50 to 57 with	1.6
less than 25 years of service	
Act 447 Public Officers in High Risk Positions at least age 58	0.0
with at least 10 years of service or at least age 50 with at least	
25 years of service	
Act 1 General Employees	2.0
Act 1 Public Officers in High Risk Positions	1.6
System 2000 and Act 3 General Employees	2.0
System 2000 and Act 3 Public Officers in High Risk Positions	1.6

## SECTION IX - SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

<u>Commencement of benefits for terminated vested members</u>: Future terminated members with a vested benefit are assumed to retire at the ages shown below, or at the attained age on the valuation date if later.

Employment Category	Act 447	Act 1	System 2000	Act 3
General Employees	61	65	65	67
Public Officers in High Risk Positions	61	65	55	58

<u>Retirement</u>: Rates of retirement vary by employment category, Act, age and years of Creditable Service, and whether the member was eligible to retire as of June 30, 2013 for Act 447, Act 1, and System 2000 members.

Act 447 General Employees				
who were eligible	who were eligible to retire as of June 30, 2013 or attained 30 years of Creditable			
	Service by Dec	ember 31, 2013		
		Service condition		
Age	10 years	25 years	30 years	
45 to 49			10.0%	
50 to 53			15.0	
54	20.0			
55 to 57		10.0%	20.0	
58	5.0%	10.0	20.0	
59 to 64	10.0	15.0	20.0	
65 to 69	15.0	15.0	20.0	
70	100.0	100.0	100.0	

## SECTION IX - SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Г				
	Act 447 General Employees			
	who were not eligible to retire as of June 30, 2013 and did not attain 30 years of			
	Creditable Service by December 31, 2013			
	Year of Retirement Eligibility			
	Age First Second ar		Second and Later	
	59	20.0%	15.0%	
ſ	60	25.0	15.0	
Ī	61 to 69	30.0	15.0	
Ī	70	100.0	100.0	

Act 447 Public Officers in High Risk Positions				
	who were eligible to retire as of June 30, 2013			
		Service condition		
Age	10 years	25 years	30 years	
45 to 48			10.0%	
49			15.0	
50		7.0%	15.0	
51 to 56		15.0	20.0	
57		20.0	30.0	
58	2.5%	20.0	100.0	
59 to 64	10.0	25.0	100.0	
65 to 69	10.0	30.0	100.0	
70	100.0	100.0	100.0	

Act 447 Public Officers in High Risk Positions who were not eligible to retire as of June 30, 2013				
	Service condition			
Age	10 years	10 years 30 years		
55		50.0%		
56	15.0			
57	15.0			
58	100.0			
59 to 64	25.0%	100.0		
65	100.0	100.0		

## SECTION IX - SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Act 1 General Employees who were eligible to retire as of June 30, 2013		
WITO	Service condition	
Age	10 years	25 years
55 to 57		4.5%
58		4.5
59		8.0
60		9.0
61		10.0
62		13.0
63 to 64		14.0
65	15.0%	50.0
66	15.0	15.0
67	100.0	100.0

Act 1 General Employees		
who were not eligible to retire as of June 30, 2013		
Age	Any Service	
65	50.0%	
66	20.0	
67	100.0	

## SECTION IX - SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

Act 1 Public Officers in High Risk Positions who were eligible to retire as of June 30, 2013			
	Service condition		
Age	10 years	25 years	30 years
45 to 48			10.0%
49 to 50			15.0
51 to 54			20.0
55 to 56		5.0%	20.0
57		5.0	30.0
58		5.0	100.0
59 to 60		5.0	
61 to 64		10.0	
65	10.0%	50.0	
66 to 69	10.0	10.0	
70	100.0	100.0	

Act 1 Public Officers in High Risk Positions who were not eligible to retire as of June 30, 2013		
	Service condition	
Age	10 years	30 years
55		40.0%
56		15.0
57		15.0
58 to 64		100.0
65	100.0	100.0

System 2000 General Employees			
Age	Eligible to Retire	Not Eligible to Retire	
	as of June 30, 2013	as of June 30, 2013	
60	15.0%		
61 to 64	15.0	10.0%	
65	15.0	40.0	
66	15.0	20.0	
67	100.0	100.0	

## SECTION IX - SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014

System 2000 Public Officers in High Risk Positions		
Age Any Service		
55	25.0%	
56 to 64	20.0	
65 to 66	25.0	
67	100.0	

Act 3 Employees		
Age	General Employees	Public Officers in High Risk Positions
58		30.0%
59 to 64		20.0
65 to 66		25.0
67	100.0%	100.0

<u>Disability</u>: Rates are based on the six month elimination period rates in the 1987 Commissioners Group Disability Table, adjusted as set forth in the table below.

	Adjustment to 1987 CGDT		
Act	Members Covered under Act 127 Other Members		
447	100% 75%		
1	100%	75%	
2000 and 3 General Employees	<ul> <li>100% for ages 50 and younger</li> <li>300% for ages 60 and older</li> <li>Interpolated from 100% to</li> </ul>	75%	
	300% in the 10 years between age 50 and age 60		
2000 and 3 Public Officers in High Risk Positions	<ul> <li>100% for ages 40 and younger</li> <li>300% for ages 50 and older</li> <li>Interpolated from 100% to 300% in the 10 years between age 40 and age 50</li> </ul>	n/a	

## <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

100% of disabilities occurring while in active service are assumed to be occupational for members covered under Act 127.

<u>Pre-retirement Mortality</u>: For general employees not covered under Act 127, RP-2000 Employee Mortality Rates for males and females projected on a generational basis using Scale AA. For members covered under Act 127, RP-2000 Employee Mortality Rates with blue collar adjustments for males and females, projected on a generational basis using Scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date.

100% of deaths while in active service are assumed to be occupational for members covered under Act 127.

<u>Post-retirement Healthy Mortality</u>: 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 95% 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.

<u>Post-retirement Disabled Mortality</u>: Rates which vary by gender are assumed for disabled retirees based on a study of plan's experience from 2007 to 2012 equal to 105% of the rates from the UP-1994 Mortality Table for Males and 115% of the rates from the UP-1994 Mortality Table for Females. No provision was made for future mortality improvement for disabled retirees.

<u>Marriage</u>: 100% of current active members covered under Act 127 who die in service or become disabled are assumed to have qualifying beneficiaries receiving the maximum benefits possible, which are approximated by a spouse with males 4 years older than females.

<u>Form of Payment</u>: For members retiring after June 30, 2013 (other than under Law 127), upon disability an immediate lump sum distribution of the Defined Contribution Hybrid Contribution Account plus, for Act 447 and Act 1 members, a modified cash refund of the accrued benefit as of June 30, 2013 commencing at retirement eligibility; otherwise, a modified cash refund.

## <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

For members retiring after June 30, 2013 under Law 127, a Joint & 100% Survivor benefit of the Law 127 Disability benefit.

Marital status was provided for current retired and disabled members who retired prior to July 1, 2013. For those indicated as married, a joint and survivor annuity was assumed (as shown in the table below), with an adjustment for the probability the spouse has pre-deceased the retiree as of the valuation date. Those not married were assumed to have a modified cash refund (as shown in the table below). The spouse's date of birth was imputed based on an assumed age difference of 4 years with males older than females.

Assumed Form of Payment for Members retired before July 1, 2013		
Act	Marital Status	Form of Payment
447	Married at retirement	Joint and 60% survivor benefit – Supplementation Joint and 50% survivor benefit – Coordinated (30% is Basic System Benefit) (20% is System Administered Benefit)
447	Not married at retirement	Modified cash refund (approximated by single life annuity with 3 years certain)
1	Married at retirement	Joint and 60% survivor benefit
1	Not married at retirement	Modified cash refund (approximated by single life annuity with 3 years certain for Mayors, Police & Fire and 5 years certain for other members)
305 (System 2000) - Disabled	Married at retirement	Joint and 60% survivor benefit
305 (System 2000) - Disabled	Not married at retirement	Modified cash refund (approximated by single life annuity with 5 years certain)

All Act 127 retirees were assumed to have a joint and 100% survivor benefit regardless of marital status. The survivor was approximated by a spouse with an assumed age difference of 4 years with males older than females. An adjustment was made for the probability the survivor has pre-deceased the retiree as of the valuation date.

## <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

Members who terminate employment with a vested benefit are assumed to elect to receive a deferred pension benefit in lieu of a refund of contributions.

No future dependent children were assumed to become beneficiaries.

No surviving spouse is assumed to become re-married.

<u>Medical Insurance Plan Contribution</u>: 85% of current service and disability retirees who retired before July 1, 2013 are assumed to receive a monthly medical insurance continuation benefit of \$100 per month.

<u>Deferred Vested Participants</u>: Complete census data on deferred vested participants was not available. The actuarial accrued liabilities for Act 447 and Act 1 members have been increased by 5% to approximate the value of the liability on behalf of deferred vested participants.

<u>Service Purchase and Data Reporting Issues</u>: Active liabilities for benefits earned prior to June 30, 2013 are increased by 20% for members of Act 447 to approximate the value of service purchases not yet reflected in the census data, and also data reporting issues, including members who have higher past salaries than provided in the valuation census data, and members who are reported as participating in Act 1 or System 2000 while active but who retire under Act 447.

<u>Municipal Police, Municipal Firefighters and Custody Officials</u>: For municipal police, municipal firefighters, and custody officials as of June 30, 2013, the classification as a Public Officer in a High Risk Position was assumed to occur prior to the changes in retirement eligibility requirements such that any member who became eligible to retire solely due to the re-classification as Public Officer in a High Risk Position remained eligible to retire after the Act 3 retirement eligibility changes.

<u>Administrative Expenses</u>: Average of past two year's administrative expense, rounded up to the nearest \$250,000. For the 2014-2015 plan year, this amount is \$29,500,000.

<u>Census Data Collection Date</u>: July 1, 2013. When information is provided by participant category in this report, the category is determined as of the census data collection date.

### <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

Special Data Adjustments: Upon review of the July 1, 2013 census data submitted by PRGERS, we observed several areas where data was missing, inconsistent, or invalid. We reviewed each issue and presented an analysis to PRGERS that consisted of a description of the data issue, a proposed solution, and a brief rationale supporting the proposed solution. The recommendations were reviewed by PRGERS staff, revised as applicable, and applied to the census data in order to prepare it for use in the valuation. The majority of the data edits and assumptions were applied to the following data items:

- Date of birth
- Date of hire
- Allocation of Basic System Benefits and System Administered Benefits
- Accumulated Employee Contributions
- Employment Category Code (Police / Fire Code)
- Plan Code (Coordinated / Supplementation option)
- Form of payment
- Retirement Law
- Entity Class

Credited service is based on the greater of "Years Worked" reported in the valuation census data and the elapsed time from date of hire to the valuation date.

Accrued benefits as of June 30, 2013 were estimated for Act 447 and Act 1 active members based on the data submitted for the June 30, 2013 and earlier valuations.

The census data provided for the participants in pay status as of June 30, 2013 did not reflect the increase in the minimum benefit to \$500 per month under Act 3. Pension benefits were increased as necessary to bring the total pension benefits for retirees and disabled retirees as of June 30, 2013 to \$500 per month and the total pension benefits for beneficiaries as of June 30, 2013 to \$250 per month. The increase was assumed to be a Basic System Benefit.

For current disabled retirees and beneficiaries receiving benefits under Act 127, the pension benefits paid by System assets (e.g. the Basic System Benefit) was assumed to be 30% of the total reported pension benefit.

Benefits for current beneficiaries who are under age 23 as of the valuation date were assumed to cease at age 23. Benefits for current beneficiaries who are age 23 or older

## <u>SECTION IX – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2014</u>

as of the valuation data were assumed to be payable for life. In addition, the current level of benefit for all beneficiaries was assumed to remain constant.

<u>Benefits not valued</u>: The minimum post-retirement death benefit of \$1,000 for retirees without surviving beneficiaries who retired prior to July 1, 2013 is not explicitly valued. The additional liability associated with this benefit is expected to be de minimis.

The special mayor retirement age for Act 447 and Act 1 mayors is not valued. The additional liability due to this reduced retirement age is expected to be de minimis.

Moreover, this report does not address the guarantee insurance reserve for life insurance on loans to plan members. (Please see Notes to Basic Financial Statements on pages 22 and 50 and Statements of Plan Net Position on page 16 of the System's June 30, 2013 Basic Financial Statements.)

<u>Basis for demographic assumptions</u>: The post-retirement healthy and disabled mortality assumptions used in this valuation are based on a study of plan's experience from 2007 to 2012. Most other demographic assumptions used in this valuation are based on a 2009 experience study using data as of June 30, 2003, June 30, 2005, and June 30, 2007. Certain demographic assumptions (e.g. termination and retirement) were impacted by the Act 3 pension reforms and were revised based on the new retirement eligibility and expected future experience. All assumptions were reviewed with PRGERS staff for reasonableness and are documented above.

<u>Changes in actuarial assumptions since the prior valuation</u>: The investment return assumption was increased from 6.40% to 6.75%. Accordingly, the assumed investment return on the Defined Contribution Hybrid Contribution Account (80% of the net investment return assumption) was increased from 5.12% to 5.40%. The interest rate assumption for GASB 45 accounting purposes was decreased from 3.25% to 3.10%.

With the enactment of Act 3 of 2013, termination, retirement and disability rates were added for new Act 3 members.

The compensation increase assumption was revised due to Act 66.

## <u>SECTION X – SUMMARY OF ACTUARIAL METHODS AS OF JUNE 30, 2014</u>

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. 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. However, the amount of the return of contributions due to former members was provided by the System as of June 30, 2014.

# SECTION X - SUMMARY OF ACTUARIAL METHODS AS OF JUNE 30, 2014

## Changes in actuarial methods since the prior valuation

The actuarial cost method was revised from projected unit credit to the entry age normal method to comply with the requirements of GASB 67. The cost method for GASB 45 was also changed from projected unit credit to the entry age normal method. The amortization period for GASB 45 has been reduced to the expected future lifetime of current in pay members.

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.