# Pennsylvania Municipal Retirement System

2008

Comprehensive Annual Financial Report For the Year Ended December 31, 2008

# The PMRS

To be Pennsylvania local governments' pension administrator *of choice*.



The Pennsylvania Municipal Retirement System seeks to help Pennsylvania's local governments, regardless of size or resources, secure the future retirement of their employees by providing comprehensive, cost efficient and professional pension administration services through a pension plan tailored to the participants' and sponsors' requirements.



# The Pennsylvania Municipal Retirement System

Comprehensive Annual Financial Report For the Fiscal Year Ended December 31, 2008

John A. Haiko, Chairman Pennsylvania Municipal Retirement Board

James B. Allen, Secretary Pennsylvania Municipal Retirement System

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Prepared by the Accounting and Operations Divisions of the Pennsylvania Municipal Retirement System

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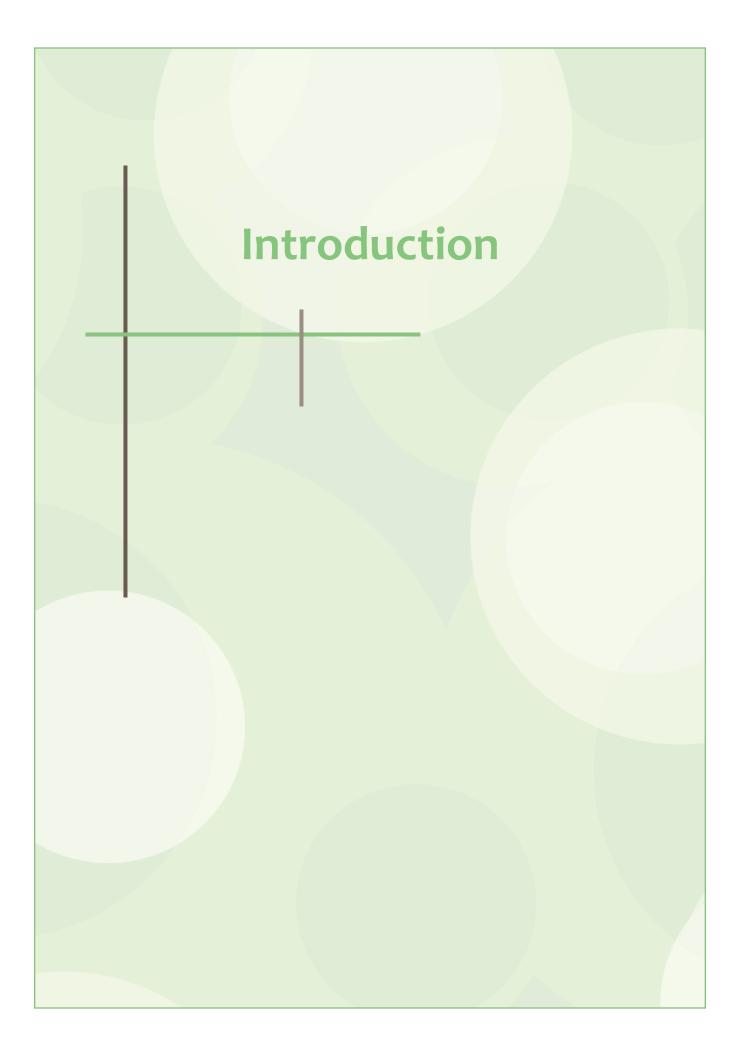
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### **Letter of Transmittal**



# Pennsylvania Municipal Retirement System Commonwealth of Pennsylvania

P.O. Box 1165, Harrisburg PA 17108-1165 Phone: (717) 787-2065 (800) 622-7968 Fax: (717) 783-8363 www.pmrs.state.pa.us ra-staff@state.pa.us

June 30, 2009

Pennsylvania Municipal Retirement Board Pennsylvania Municipal Retirement System P.O. Box 1165 Harrisburg, Pennsylvania 17108-1165

As part of our continuing commitment to full financial reporting for the Pennsylvania Municipal Retirement System (the System), we are honored to submit the System's Comprehensive Annual Financial Report for the fiscal year ended December 31, 2008. Consistent with the requirements of the Pennsylvania Municipal Retirement Law, Act of 1974, P.L. 34, No. 15 (the Act) as amended, the System distributes the Comprehensive Annual Financial Report to our governing board, to the members of the General Assembly of Pennsylvania, to each participating municipal employer, and to all other interested parties upon request.

The System is solely responsible for the accuracy of the data in this report. As the two individuals responsible for the System's financial records as of December 31, 2008, we offer our assurances that we have made every effort to present a comprehensive report. To the best of our knowledge, the enclosed information is accurate in all material respects.

### **OVERVIEW OF THE SYSTEM**

The Pennsylvania Municipal Retirement System, which is an agent multiple-employer system, is head-quartered in Harrisburg, Pennsylvania. The System is a state retirement agency created by the Pennsylvania General Assembly in 1974. Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board (the Board).

The System administers sound, cost-effective pension plans on a contracted basis for local government employees throughout the Commonwealth. Our services include accounting services, actuarial valuations, employee consultation and record keeping, and asset management. Any Pennsylvania county, city, town, township, borough, municipal authority, or institution supported and maintained by a municipality may participate. All participating plans as of January 1, 2008, are listed in the Statistical Section of this report.

The System offers various plan designs: defined benefit, defined contribution, and hybrid. The annual benefit is dependent upon the individual municipality's contracted benefit package because each pension plan is designed based on each municipality's individual needs. Benefits provided to participants in the System are typically dependent upon both age and service requirements. In addition to standard monthly pension benefits, plans routinely include provisions for vesting, disability benefits, survivor benefits, and death benefits. The plan cost is determined by individual plan characteristics. The System's individual plans may have a municipal contribution and an employee contribution or just an employer charge. Municipal contributions typically range from 4% to 12% of projected payroll for municipal employees and from 12% to 20% for police and firefighters. The employee contribution is determined by plan contract. In 2008, plan requirements ranged from no employee contribution to as high as 7.5% of earnings.

### 2008 CAFR

The 2008 Comprehensive Annual Financial Report (CAFR) format follows the required Governmental Accounting Standards Board (GASB) Statement No. 25. The annual report is presented in five sections: introductory, financial, investment, actuarial, and

statistical. The Introductory Section contains this Letter of Transmittal, the System's administrative organization, the Chairman's Report, and a summary of plan provisions; the Financial Section presents the opinion of the System's independent auditors, Clifton Gunderson LLP, and the financial statements of the System with accompanying notes and schedules, including management's discussion and analysis on page 17, which describes the financial performance of the plan; the Investment Section contains an overview of the System's investment activities and policies and an overview of the System's revenues by source, expenses by type, administrative expenses, and investments; the Actuarial Section presents the opinion of the System's independent actuarial firm, Cheiron, and the results of its annual actuarial valuation; and the Statistical Section includes significant financial and demographic data presented on a multi-year basis and the Schedule of Participating Employers.

### **ECONOMIC ENVIRONMENT**

To characterize the year 2008's economic environment as "dismal" would not be misleading; but, it also would not fully capture the spirit of the 2008 economic atmosphere. Terms like "shell-shocked," "panicked," and "traumatized" probably better define the state of the United States' and the world's economies. The average consumer began 2008 by trying to understand financial terms like "subprime" and "slowdown." By year's end, that same consumer was struggling with a brand new set of economic terms to comprehend. Revelation after revelation brought not only the American consumer but the world's economy to a stand still. What did "leverage," "swaps," and "crisis of confidence" have to do with the economy? The answer was revealed in the fourth quarter of the year. The American consumer and taxpayer defined the economic environment of 2008 using the dualmeaning word "bailout;" from the consumer's point of view – to evacuate, to leave before you get caught-up in a disaster; and, from the taxpayer's point of view – to spend billions of tax dollars to rescue mega financial institutions too big to fail.

The year began with the nation's economic growth merely slowing down. Weaknesses in consumer spending were associated with a gradual realization that the housing market's foundation was starting to show cracks due to the amount of leverage

used to build the house of cards. In the second and third quarters, foreclosures in the housing markets began to rise at rates unseen since the Great Depression. The slowdown in home buying spread to the other sectors of the economy as car sales dropped and industrial capacity utilization also declined. By the second half of the year, economic growth was no longer a reality. The nation saw the economy shrink in the third and fourth quarters by 0.3% and 3.8%, respectively. Economists define a recession as two consecutive quarters of negative GDP growth. The question on everyone's mind as the year ended was not whether the nation was in a recession; but, rather, whether the nation was leading the world's economies into a depression.

The United States' economic psyche was broken by the failure of Lehman Brothers on September 15th, which followed closely in the footsteps of the federal government's \$85 billion takeover of AIG. The financial markets began a drop which some characterized as the largest panic since the 1930's. GDP changed by -3.8% for the year. During 2008, a total of 2.6 million jobs were lost, with 1.9 million of them disappearing in the last 4 months of the year. Real GDP decreased 0.8% (measured from the fourth quarter of 2007 to the fourth quarter of 2008). For the year, the adjusted Consumer Price Index (Urban Markets) rose only 0.1%.

Politicians began responding to the economic problems and the country's financial woes with knee-jerk reactions. At first, there was unity in the call for creating a new stimulus package to create new jobs; but, that quickly deteriorated into the old debate of a government spending stimulus versus tax cuts to encourage industrial and consumer spending. The question was, "would anything work?" Industrial capacity utilization decreased dramatically falling to 73.6% in December – well below the long-term average of 81.0%. Retailers had the worst Christmas season in recent memory. Few economists offered any hope for a near-term recovery as 2008 came to a close.

### FINANCIAL INFORMATION

The System's financial statements were prepared in accordance with generally accepted accounting principles of the United States of America. The financial statements and the required supplementary informa-

INTRODUCTION

tion in the report have been prepared in accordance with the standards for disclosure following GASB Statement No. 25, 34, 37, 40, and 50 guidelines. The accrual basis of accounting is used to record all financial transactions including assets, liabilities, revenues, and expenses. Gains and losses on sales and exchanges of investments are recognized on the transaction date. Significant accounting policies are detailed in the Financial Section under "Notes to Financial Statements."

The System's net assets totaled \$1,170,631,824 as of December 31, 2008. In 2008, the System's net assets decreased by \$394,141,878. Investment-related losses decreased the portfolio by \$387,077,602 and contributions added \$49,693,605. Benefit payments and administrative expenses reduced the total assets by \$56,757,881. Additional information is detailed in the Financial Section ("Statements of Plan Net Assets" and "Statements of Changes in Plan Net Assets").

The System has established internal computerized control policies and procedures for the review and verification of all receipts and payments made to and from the fund. In addition, the System's staff prepares a yearly budget which must be adopted by the Board. The budget is also presented to and reviewed by the Local Government Committees of the Pennsylvania House and Senate at least two months prior to the beginning of the fiscal year. The committees can approve the budget, reject it, or take no action by the end of the year in which case the proposed budget becomes final. Budgetary controls include monthly review and presentation by management with bimonthly Board reviews. The 2008 administrative budget was adopted in September 2007 and set at \$3.37 million exclusive of investment fees. Expenditures (exclusive of investment fees) in 2008 amounted to \$2,986,656. More information on the System's expenses are included in the Financial Section of this report ("Schedule 3 - Administrative Expenses").

### **REVENUES**

The System was established by law to pay pension benefits when due. It accumulates sufficient funds to pay benefits through employee contributions, employer contributions, and investment earnings. The following schedule presents a summary of revenues

for the fiscal year ended December 31, 2008, and also shows the amount and percentage of increases and decreases in relation to December 31, 2007, revenues.

Municipal contributions are based upon an actuarial valuation, using the Entry Age Normal Actuarial Cost Method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined.

Member contributions vary according to the type of pension plan. Under Articles II and III of the Act, members are required to contribute 3% to 8% of their salary. The amount a member contributes under Article IV of the Act is based upon contracted plan provisions and is principally expressed as a percent of compensation or salary.

Investment revenues are a combination of earnings from bonds, equities, real estate, and a short-term cash management fund. During the 2008 fiscal year, the fair value of the System's investment portfolio decreased from \$1,657,942,560 to \$1,165,032,957. The largest portions of the investment revenue decrease came from domestic and international equities.

The final portion of revenue is derived from assessments. Each municipality is charged a \$20 assessment per member to help cover administrative expenses incurred by the System. Any fluctuation in assessments is caused by the number of members per municipality and can be affected by employee turnover or new plans being added or plans leaving the System in previous years.

Eight-year historical trend information listing the System's revenues by source is presented in Part I of the Statistical Section of this report.

### **EXPENSES**

The System's primary expense represents the purpose for which it was created: payment of benefits. The following schedule presents a summary of the System's expenses for the fiscal year ended December 31, 2008, and shows the percentage of increases and decreases in relation to December 31, 2007, amounts.

The major expense-related items for 2008 were payment of benefits, refunds of withdrawing plans, refunds of contributions due to termination or death, and administrative expenses. A breakdown of the System's expenses including eight-year historical trend information is presented in Part I of the Statistical Section of this report.

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Additions to Plan Net Assets	2008 Amounts	Percent of Total	2007 Amounts	Increase (Decrease) from 2007	Percent of Increase (Decrease)
Member Contributions	\$ 17,870,426	(5.30)%	\$ 17,491,672	\$ 378,754	2.17%
<b>Municipal Contributions</b>	31,532,859	(9.35)	29,059,248	2,473,611	8.51
Assessments	290,320	(0.09)	282,628	7,692	2.72
Investment Income/(loss)	(387,077,602)	114.73	114,838,806	(501,916,408)	(437.06)
Total	\$(337,383,997)	100.00%	\$161,672,354	\$(499,056,351)	(308.68)

### **Expenses**

Deductions from Plan Net Assets	2008 Amounts	Percent of Total	2007 Amounts	Increase (Decrease) from 2007	Percent of Increase (Decrease)
Annuity benefits	\$46,173,544	81.35%	\$42,898,882	\$ 3,274,662	7.63%
Terminations	7,597,681	13.39	7,006,182	591,499	8.44
Administrative	2,986,656	5.26	2,862,482	124,174	4.34
Total	\$56,757,881	100.00%	\$52,767,546	\$3,990,335	7.56

# INVESTMENT HIGHLIGHTS

Because of the economic

crisis that unfolded in 2008, perhaps the most important investment decision the Pennsylvania Municipal Retirement Board made during the year was to exit the securities lending market in August. Lending a portfolio's securities used to be one of the more esoteric and obscure ways major investors added income to their accounts. Thought to be "risk free," the process involved an investor lending a security from their portfolio to a broker, for a fee, and the broker returning the security after several days when the broker obtained ownership of the security out-right or was done borrowing it.

The investor received money from the broker for the borrowing of the security; but, the investor also got to hold as collateral other securities owned by the broker / borrower plus a portion of the income those other securities generated. The problem that arose in the third quarter of 2008 was that the value of the collateral, usually bonds, sank faster than the value the investor anticipated. This drop occurred in September with the bankruptcy of AIG and the collapse of Lehman Brothers. Many investors who had their securities out on loan never got the securities back and the value of the securities held as collateral evaporated in some cases. The Pennsylvania Municipal Retirement Board (Board)'s decision in the first week of August to stop lending the fund's securities and to call back all those on loan avoided the loss of millions of dollars that befell other investors.

The year also saw a new asset allocation study completed and a new asset allocation program put in place. The Board decreased the fund's allocation to domestic, large capitalized equities from thirty-five percent (35%) of the portfolio to twenty-five percent (25%) with the other ten percent (10%) allocated to emerging market equities. The commitment was funded in the fall of 2008 with the selection of State Street Global Advisors, Inc. as the index manager to handle the award. The Board also refined the commitment of fifteen percent (15%) of the portfolio to real estate so that ten percent (10%) was designated for core commercial real estate and five percent (5%) was designated for timberland investments.

In hindsight, the Board's commitment to diversification and avoidance of risk served the fund well. While no investor weathered the turmoil of the financial markets' implosion in 2008, the System ended the year better off than many retirement plans and clearly in a position to approach 2009 with a "business as usual" approach. Any retrospection undertaken left the Board and the staff comforted and confident that the investment policy in place, the discipline of the investment approach adopted, and the quality of the investment advisors and consultants retained served the System, our plans, and our members well. Losses had been incurred; but, fundamental integrity was well-grounded.

The year's performance can not be sugar-coated. The numbers were stark reminders that the markets have risk associated with them. The annualized return of -24.8% for the year placed the System's portfolio in the 56th percentile of the Independent Consultants Cooperative (ICC) Universe. The five-year average annualized rate of return was 2.4% and ranked in the universe's 35th percentile which was relatively good, but admittedly short of the System's actuarial assumed rate of 6.0%. This is a concern that the PMRS Board is monitoring.

The returns by asset class line up in descending order as follows: Fixed Income at 5.4%; Real Estate at -4.6%; Small Cap Domestic Equity at -35.4%; Large Cap Domestic Equity at -37.2%; and, International Equity at -43.5%. Like the rest of the investment world, PMRS had nowhere to park the investments when the turmoil gripped the markets.

### **FUNDING**

The System's level of funding is based on the actuarial reserve method. Funds are derived from the excess of revenues over expenses and are accumulated by the System in order to meet current and future benefit obligations to retirees and beneficiaries. As the funding level increases, the assets accumulate and strengthen the investment income potential. Decrease in net assets for the 2008 fiscal year was \$394,141,878. This represents a decrease in the fund balance of 25.2% over the 2007 fund balance.

To comply with GASB Statement No. 25 disclosure requirements, the "Schedule of Funding Progress" was calculated based on the most recent actuarial valuation dated January 1, 2008. As illustrated in the schedules under "Required Supplementary Information," the System's funded ratio in relation to the System's current actuarial value of assets is adequate to fund the System's actuarial accrued liabilities. Additional information on the System's actuarial value, liabilities, and funding progress can be found in the Actuarial and Financial Sections of this report.

As an agent multiple-employer Public Employee Retirement System (PERS), the System reports to each of the trustees of the plans it administers, providing the governing authority of the member plans with complete actuarial, accounting, and funding data. De-

tailed information on the System's plan funding can be found in the Financial Section (Schedules 1 and 2) and the Actuarial Section of this report under Exhibit I.

### **MAJOR INITIATIVES**

The Board and the System staff spent most of 2008 monitoring the turmoil that entered the financial markets in mid-year and then the ultimate collapse in investor confidence that overtook the markets in the fourth quarter. Some initiatives were discussed earlier under the "Investment Highlights" section of this transmittal letter – the exiting of the securities lending market and the implementation of a new asset allocation policy; but, practical initiatives were put in place to reassure the plans' sponsors and the membership. A key initiative was the utilization of the System's website to explain the steps the System had taken to mitigate the impact of the collapse of AIG, the bankruptcy of Lehman Brothers, and the impact of the largest federal intervention into the financial markets since the Great Depression.

Procedurally, the agency's Accounting and Membership Services Divisions continued to refine and fine tune the new computer software installed in late 2006. Significant advancements in the accounting module led to the earliest distribution of the plans' financial statements ever. The staff's comfort level with the accuracy and completeness of the computergenerated calculations and posting allowed for additional customer service initiatives. The Operations Division staff teamed with the System's Information Technology staff to advance the implementation of a disaster recovery program that was long overdue for a revamping. The Board adopted in July a very comprehensive Disaster Recovery Plan. Yet to be finalized is an off-site recovery location. An interagency agreement was in the pipeline at year's end, but still not quite finalized.

In terms of System policy initiatives, the Board began what is intended to be a three-step program to obtain official qualification of the Pennsylvania Municipal Retirement System as an Internal Revenue Service tax-qualified pension plan. Like many, many other public pension plans around the state and the country, PMRS has operated as a tax-qualified pension plan. The IRS announced early in 2008 that "gov-

ernmental plans have been 'underserved by IRS' and that the agency now intends to look systematically at such plans." PMRS joined with our sister state pension plans, the Public School Employees Retirement System, and the Pennsylvania State Employees Retirement System, to retain outside legal counsel to undertake a review of the three Systems and to identify potential issues associated with the ultimate goal of obtaining favorable tax-qualified rulings.

The Board also adopted four policy statements in 2008. Two policy statements related to revisions in the Investment Policy, the third related to the Proxy Voting Policy and the fourth initiative was a new policy relating to how the System would handle "Over Payments." Over payments occur when a former member, annuitant, beneficiary or survivor annuitant is paid a benefit exceeding his or her entitlement. The new policy documents the collection procedure.

### **PROFESSIONAL SERVICES**

The financial information in this report has been audited by the independent accounting firm of Clifton Gunderson LLP, which is completing year three of a five-year contract. The actuarial information was prepared with the help of K. Kent, consulting actuary from Cheiron. Cheiron has completed year two of a five-year competitively bid contract. The investment information was prepared with the cooperation of the System's independent investment consultant, R. Dahab of Dahab Associates. This firm is completing year four of a five-year contract that was competitively bid. The Board and staff sincerely appreciate the cooperation and commitment of these three advisors in providing information for the preparation of this report.

### **INTERNAL CONTROLS**

The management of the System is responsible for and has implemented systems of internal accounting controls. These controls are designed to assure the safeguarding of assets and the reliability of financial records. We believe that the internal accounting controls currently in place are adequate to meet the purpose for which they were intended. We also believe the financial statements, supporting schedules and statistical tables to be fairly presented in all material respects.

### **ACKNOWLEDGMENTS**

The preparation of this Comprehensive Annual Financial Report could not have been completed without the dedication of staff and a devoted team of consultants. As to staff, the Accounting Division team and the writers and technicians in the Operations Division make the document cohesive and comprehensive. The hours and hours of data gathering, assembling and proofing are reflected in this product. We appreciate their efforts and support. As to the consultants, the accounting firm of Clifton Gunderson, the actuarial firm of Cheiron Inc, and the investment-consulting firm of Dahab Associates, Inc. are indispensable contributors not just to the System's operations, but also to this publication. We would not be able to compile such a thorough set of data without their input. We are sincerely appreciative of their support.

Key to the success of any organization is the leadership that is exhibited at the top. The new year, with all its turmoil, also saw a new Chairman lead PMRS – John Haiko. John is a professional in the business world, a devoted husband and family man, an extraordinary public servant, and still he has found time to guide the System. His quiet leadership style was just the approach that was needed in 2008 – a steady hand at the wheel. Much appreciation is extended to him and his fellow Board members.

The most important individuals to recognize though remain our members. The support and confidence you have given to us does not go unrecognized nor is it unappreciated. The growth of the System is evidence that our vision is a clear one – we remain committed to striving to be "Pennsylvania local governments' pension administrator of choice." We thank you for choosing to use our services.

James R. Allen Reynold E. Witmer

James B. Allen Secretary

Reynold E. Witmer Chief of Accounting



8 INTRODUCTION

# Pennsylvania Municipal Retirement Board

as of December 31, 2008





### 1 John A. Haiko Chairman

Represents Pennsylvania State Association of Township Supervisors

### 2 Robert T. Umstead Vice-Chairman

Represents Pennsylvania State Association of Boroughs

### **3 Victor Cicero**

Represents Pennsylvania Municipal Retirement System retired members

### 4 Paul Corbin

Represents Pennsylvania State Association of County Commissioners

### 5 Pedro A. Cortés

Secretary of the Commonwealth (ex-officio) represented by Thomas J. Weaver, Deputy Secretary for Administration

### 6 Duane L. Filchner

Represents Pennsylvania Municipal Authorities Association

### 7 Dawn C. Knapp

Represents Pennsylvania Professional Fire Fighter's Association

### 8 Anthony Spagnolo

Represents First Class Township Commissioners

### 9 Charles Staso

Represents Active Police Officers enrolled in PMRS

### 10 Trish Ward

Represents Pennsylvania League of Cities

### 11 Robin Wiessmann

State Treasurer (ex-officio) represented by Leo Pandeladis



















### Staff, Consultants, & Managers

as of December 31, 2008

### **Administrative Staff**

### Secretary

James B. Allen

#### **Assistant Secretary**

Kristine M. Gibboney

### **Accounting Division Chief**

Reynold E. Witmer

### **Information Technology Office Chief**

Michael G. Mortimer

### **Membership Services Division Chief**

Diane L. Castner

### **Municipal Services Division Chief**

Benjamin F. Mader

### **Operations Division Chief**

Wanita J. Hoke

### **Professional Consultants**

### Actuary

Cheiron McLean, VA

Kenneth Kent, FSA, FCA, MAAA, EA

### Auditor

Clifton Gunderson LLP Timonium, MD William F. Blair, CPA, Partner

### Comptroller

Commonwealth of Pennsylvania Harrisburg, PA Joseph Natoli, Central Services

### **Investment Consultant**

Dahab Associates, Inc. Bay Shore, NY Richard E. Dahab, CFA, President

### **Legal Counsel**

Commonwealth of Pennsylvania Harrisburg, PA Gerald Gornish, Chief Counsel

### **Master Custodian**

BNY Mellon Pittsburgh, PA

### **Investment Managers** (1)

### **Century Capital Management**

Boston, MA

Paul E. Berg, Managing Director

#### **Chase Investment Counsel Corporation**

Charlottesville, VA

David B. Scott, Senior Vice-President

### Denver Investment Advisors, LLC.

Denver, CO

Dean Graves, Partner

### DePrince, Race, & Zollo

Winter Park, FI

Richard Wells, Director of Marketing

#### **Emerald Advisers, Inc.**

Lancaster, PA

John V. Thompson, Senior Vice-President

### Forest Investment Associates, Inc.

Atlanta, GA

V. Scott Bond, Director of Marketing

#### GlobeFlex

San Diego, CA

Jerre Bridges, Vice-President

### **LSV Asset Management**

Chicago, IL

Keith Bruch, Director, Client Portfolio Services

### Mercator Asset Management, L.P.

Boca Raton, FL

James E. Chaney, President, JXC Corp.

### Prudential Real Estate Investors (PRISA)

Parsippany, NJ

Lester F. Lockwood, Principal

### **State Street Global Advisors**

Boston, MA

James Thorsen, Vice-President and Principal

### **TIAA-CREF Global Real Estate**

New York, NY

Susan L. Amato, Managing Director

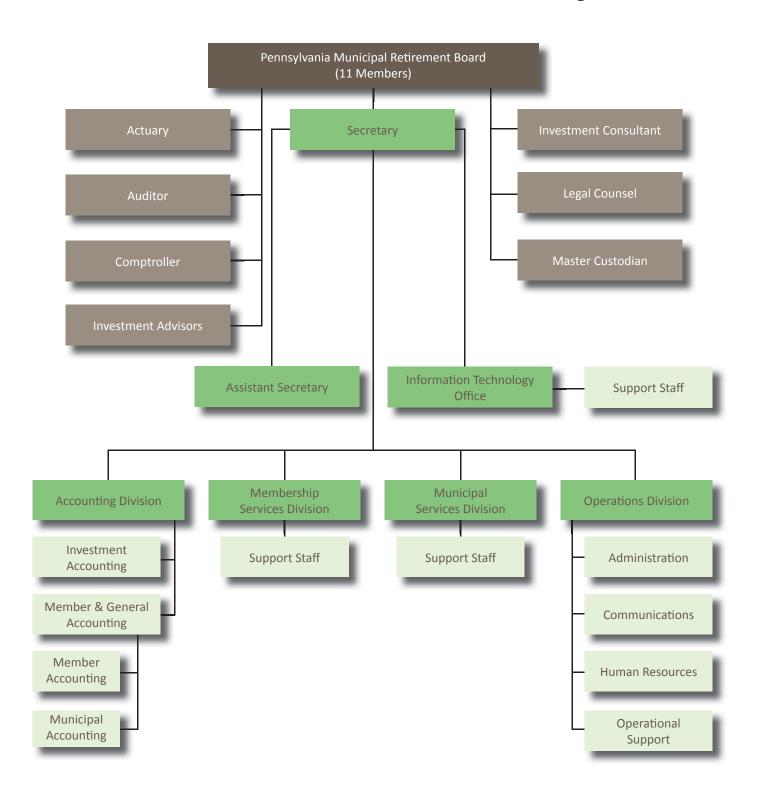
### Wentworth, Hauser and Violich

San Francisco, CA

Miriam E. Ballert, Vice-President

<sup>(1)</sup> Manages the long-term portfolio of investments reported on the Statement of Plan Net Assets. All information in the Investment Section pertains to the activity of these investment managers.

# **Organization Chart**



# Chairman's Report



# Pennsylvania Municipal Retirement System Commonwealth of Pennsylvania

P.O. Box 1165, Harrisburg PA 17108-1165 Phone: (717) 787-2065 (800) 622-7968 Fax: (717) 783-8363 www.pmrs.state.pa.us ra-staff@state.pa.us

June 15, 2009

### Dear Members:

It is my privilege to be a part of this process, the presentation of the Pennsylvania Municipal Retirement System's 2008 Comprehensive Annual Financial Report (CAFR). Continuing our agency's tradition and my fellow Board members' commitment to full public disclosure, this document provides you with the System's financial standing as of December 31, 2008. It details the year's financial activities and the steps we have taken to ensure your retirement future. The year was not one we would like to see repeated soon. Indeed, many are labeling it the worst year for the financial markets since the Great Depression. This may be a little exaggerated; but, if so, it is not too far from the truth. I am pleased to be able to report that the numbers and figures you will find reported in this CAFR tell a story of commitment and confidence. The Board, which I have been honored to chair in 2008, worked hard and remains committed to the financial integrity of the System, regardless of the directions in which the markets move.

In addition to recognizing my fellow Board members and their commitment to your pension's security, it is important that you know that the staff and consulting team who work for us, and more importantly for you, have taken many steps to guide the System through the troubled financial markets. I can point to several actions that underscore this fact; but none provides more insight than the recommendation they made to the Board in late July. Based upon their reading of the bond markets and their understanding of the Board's risk tolerance, they advised us to stop lending our securities. This suggestion involved over \$100 million dollars' worth of investments that, year-to-date, had

added over a half million dollars in additional income. After participation in two telephonic conferences within a week's time, the Board voted in early August to exit the securities lending program. That decision literally saved the System from millions of dollars in losses.



John A. Haiko, Chairman, Pennsylvania Municipal Retirement Board

While we cannot claim to make the "right" decision every time we are asked to take an action, I can guarantee you that the decision reached will always be fully vetted, researched, and evaluated with your retirement future in mind. That approach has helped me, along with my fellow Board members, to serve you. We assure you that the privilege to serve as your fiduciary is recognized as just that – a privilege. I would ask you to review the material set forth in this CAFR and to call upon us with any questions it may raise. As always, PMRS appreciates the opportunity to serve as your pension administrator.

Yours truly,

John A. Haiko, Chairman

### INTRODUCTION

The System offers a variety of alternative pension plans. Municipalities may design their own pension benefit structures. Most municipalities select this option and work with the System to create a combination of benefits that meet the individual needs of the municipality and its employees. Additionally, the System has two basic benefit plans designed by the State General Assembly: one for municipal employees and one for police and firefighters.

# SUPERANNUATION AND EARLY ANNUITY ELIGIBILITY BENEFITS

Under the basic plans, the minimum normal retirement age is 65 for municipal employees and 55 for police and firefighters. A member may retire early at any age after 24 years of service. Under an optional plan design, a municipality may choose any age or service requirement permitted under its particular municipal code. Early retirement under the optional plan may also be designed to meet the needs of the municipality.

There are two approaches to accumulating retirement benefits. Under the defined contribution approach, the benefit accrues based on the level of contributions and the investment earnings credited to the fund. The defined benefit approach depends upon the individual's age, years of credited service, and an actual benefit formula which usually includes a salary factor.

### **DISABILITY ANNUITY ELIGIBILITY BENEFITS**

A member who is unable to work because of serious injury or illness may apply for a disability annuity. The application and required medical documentation will be reviewed by the Board and the System's medical examiners to determine whether the member is eligible for the disability benefit.

A disability that results directly from doing one's job is classified as a service-connected disability. A disability that is not caused by one's work is termed a non-service disability.

Conditions for disability benefits are defined in the municipality's contract. The System's basic plans provide for (1) a service connected disability annuity of 50% of the disabled individual's final average salary offset by worker's compensation, and (2) a non-service disability with a minimum of 10 years' service and a 30% final average salary annuity.

### **VESTING ANNUITY ELIGIBILITY BENEFITS**

Conditions for vesting are defined in the municipality's contract. The basic plans have a twelve-year service requirement for vesting.

A member who terminates service before retirement may elect to leave the member's accumulated contributions in the System and defer receipt of benefits until normal retirement age. Then when the member receives the vested benefits, checks will include the member contributions and the municipal contributions.

### BENEFIT PAYMENT OPTIONS

Depending on the municipality's contractual agreement, employees may choose individual alternatives for the monthly retirement allowance or may select one from a list of options. Typical options are as follows:

- Single Life Annuity: Provides a continual income throughout the annuitant's lifetime with no beneficiary benefit
- ♦ Option 1: Reduced lifetime benefit with remaining lump sum value of account to beneficiary
- ♦ Option 2: Joint and 100% survivorship annuity
- ♦ Option 3: Joint and 50% survivorship annuity

<sup>(1)</sup> Descriptions are not identical to those in the audit report. Information has been rewritten for ease of understanding.

### **DEATH BENEFIT ELIGIBILITY**

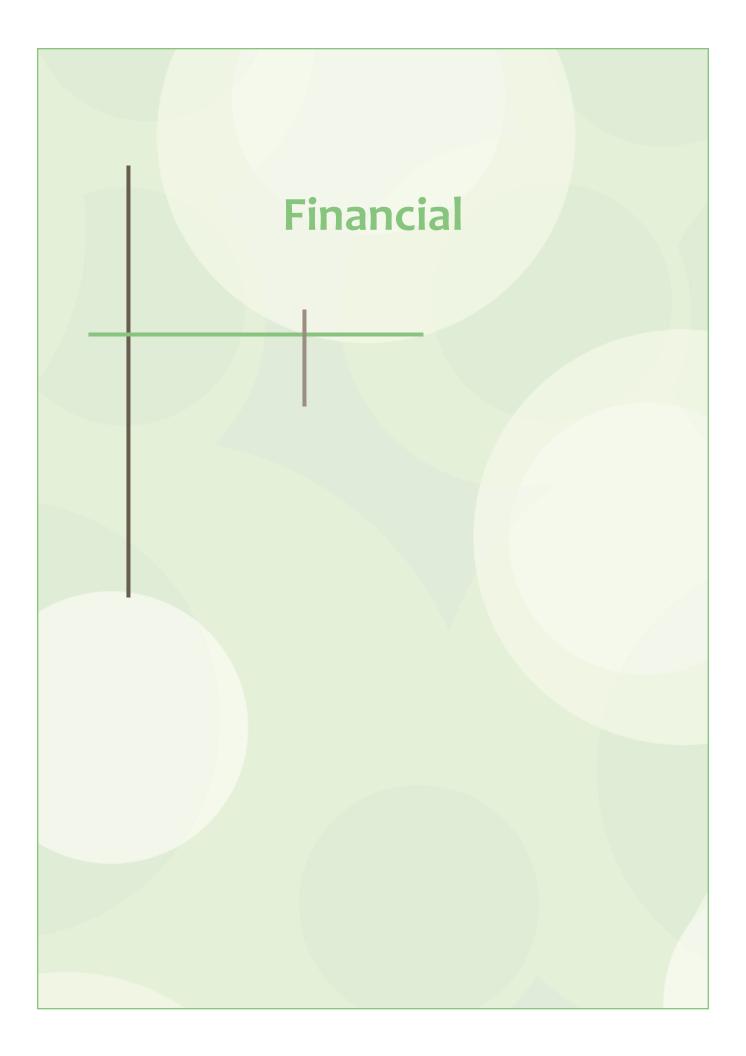
A death benefit provides some continuation of payment or presentation of benefits to a beneficiary given certain eligibility requirements of the covered individual. If an active member or vestee with minimum years of service dies, the death benefit goes into effect provided the municipality has included this feature in its plan.

### **TERMINATION OF SERVICE**

A member always receives the accumulated deductions and interest earned at the regular rate of interest, currently 6.0%. Depending upon the municipality's contract structure, the member might also receive excess investment monies upon withdrawal.

If a member terminates employment and goes to work for another municipality which is a member of the System, the employee may transfer the service credits unimpaired to the new municipal employer.

14 INTRODUCTION



### **Independent Auditor's Report**



### Independent Auditor's Report

Pennsylvania Municipal Retirement Board Pennsylvania Municipal Retirement System Harrisburg, Pennsylvania

We have audited the accompanying basic financial statements of the Pennsylvania Municipal Retirement System (the System) as of and for the years ended December 31, 2008 and 2007, as listed in the table of contents. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the System's plan net assets as of December 31, 2008 and 2007, and the changes in its plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis and Supplemental Schedules of Funding Progress and Required Employer Contributions (Schedules 1 and 2) and Actuarial Methods and Significant Assumptions are not a required part of the basic financial statements but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The Introduction, Investments, Actuarial and Statistical sections, as well as Supplemental Schedules 3 through 5, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Supplemental Schedules 3 through 5 have been subjected to the auditing procedures applied in the audit of the basic financial statements, and, in our opinion, are presented fairly, in all material respects, in relation to the basic financial statements taken as a whole. The Introductory, Investment, Actuarial and Statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

Baltimore, Maryland June 26, 2009

Offices in 17 states and Washington, DC

ifton Genderson LLP



This section presents management's discussion and analysis of the Pennsylvania Municipal Retirement System's (PMRS, the System) financial performance for the fiscal years ended December 31, 2008, and 2007. It is presented as required supplemental information to the financial statements.

### **OVERVIEW OF FINANCIAL STATEMENTS**

PMRS administers sound, cost-effective pension plans on a contracted basis for local government employers throughout the Commonwealth. Any Pennsylvania county, city, town, township, borough, municipal authority, or institution supported and maintained by a municipality may participate.

The Statements of Plan Net Assets provide a snapshot of the financial position of PMRS at December 31, 2008, including comparative amounts for the prior year.

The Statements of Changes in Plan Net Assets summarize the System's financial activities that occurred during the fiscal period from January 1, 2008, to December 31, 2008, including comparative amounts for the prior year.

The Notes to Financial Statements provide additional information that is essential to a full understanding of the financial statements. The notes are an integral part of the financial statements and include detailed information not readily evident in the basic financial statements.

The Required Supplementary Information immediately following the Notes to Financial Statements provide two schedules showing historical information concerning the funded status of PMRS and the employers' contributions.

The remaining supplementary schedules provide additional detailed information concerning the operating expenses, investment expenses, and payments to non-investment consultants. All of this supplemental information is considered useful in understanding and evaluating the financial activities of PMRS.

### FINANCIAL HIGHLIGHTS

- ◆ The System's plan net assets decreased by \$394 million from \$1,565 million at December 31, 2007, to \$1,171 million at December 31, 2008. The System's plan net assets increased by \$109 million from \$1,456 million at December 31, 2006, to \$1,565 million at December 31, 2007. These changes are primarily attributable to a net gain of loss on investments.
- ♦ The funded ratio increased from 104.2% as of January 1, 2007, to 105.9% as of the last valuation date of January 1, 2008. In aggregate, the System has been in a surplus where the actuarial value of assets exceeds the actuarial liability. That surplus has increased from \$54.0 million as of January 1, 2007, to \$81.6 million as of January 1, 2008.
- ♦ The rate of return for the year ended December 31, 2008, was a net loss of 24.8% compared to a net gain of 8.2% and 12.6% for the years ended December 31, 2007, and 2006, respectively.
- ◆ Total employee and employer contributions increased from \$46.8 million in 2007 to \$49.7 million in 2008. Total employee and employer contributions increased from \$37.7 million in 2006 to \$46.8 million in 2007.
- ◆ Total pension plan benefit payouts increased by 7.8% from \$49.9 million during 2007 to \$53.8 million during 2008. Total pension plan benefit payouts decreased by 19.9% from \$62.5 million during 2006 to \$49.9 million during 2007 primarily due to seven plan withdrawals.
- ♦ Administrative expenses increased by \$0.1 million to \$3.0 million for 2008. Expenses remained basically unchanged at \$2.9 million for 2007 and 2006. Administrative expenses were within the System's budgeted amounts for all three years.

The Pennsylvania Municipal Retirement System FINANCIAL 17

### **FUNDED STATUS**

PMRS uses an actuarial reserve of funding that is financed by member contributions, employer contributions, and earnings from invested assets. The System has historically chosen to have actuarial valuations performed biannually. No actuarial valuation was performed as of January 1, 2006, January 1, 2004, or January 1, 2002, except for those plans required to redetermine contribution requirements. A January 1, 2008, actuarial valuation was performed. The January 1, 2008, actuarial valuation was derived from actual values for the four defined benefit plans that are required to redetermine contribution levels bi-annually on even years and actuarial adjustments to the January 1, 2007, liabilities for those municipalities required to redetermine contribution levels bi-annually on odd years. The January 1, 2007, liabilities were adjusted to reflect January 1, 2008, actual active counts to estimate the liabilities for these plans to provide an overall measure of the funded status of the System. As part of this valuation, the progress toward funding pension obligations of the retirement system is

measured by comparing the actuarial value of assets to the actuarial accrued liability. This measurement is referred to as the funded ratio or funded status. PMRS is 100% funded, which is one indicator of the financial soundness of the plan. The most recent actuarial valuation reports that PMRS is 105.9% funded as of January 1, 2008.

### **INVESTMENTS**

PMRS is a long-term investor and the Board manages the Fund with long-term objectives in mind. A primary element of the System's investment philosophy is that diversification among various asset classes is the best way to achieve its goals. PMRS makes estimates of future long-term market returns and es-

### **Summary of Plan Net Assets**

as of December 31, 2008, 2007, and 2006

Analysis of Plan Assets	2008	2007	2006
Assets		(In Thousands)	)
Receivables	\$ 12,389	\$ 16,338	\$ 6,759
Investments	1,165,033	1,561,067	1,453,099
Securities lending collateral pool	-	96,876	80,335
Capital assets	229	224	282
Total assets	1,177,651	1,674,505	1,540,475
Liabilities	7,019	109,731	84,606
Total plan assets	\$1,170,632	\$1,564,774	\$1,455,869

### **Summary of Changes in Plan Net Assets**

as of December 31, 2008, 2007, and 2006

Analysis of Plan Assets	2008	2007	2006
Additions		(In Thousands)	
Contributions	\$ 49,694	\$ 46,833	\$ 37,749
Net investment gain/(loss)	(387,078)	114,839	161,140
Total additions	(337,384)	161,672	198,889
Deductions			
Benefit payments and terminations	53,771	49,905	62,491
Administrative expenses	2,987	2,862	2,921
Total deductions	56,758	52,767	65,412
Total changes in plan net assets	\$(394,142)	\$108,905	\$133,477

tablishes an asset allocation plan taking into account the risk associated with each asset class as well as the financial objectives of the Fund.

For 2008, the System's rate of return on investments was a net loss of 24.8%, which is primarily attributable to the negative returns in the domestic and international equity markets. The annualized rate of return over the past three and five years ended December 31, 2008, was -2.9% and 2.4%, respectively. The Fund's long-term actuarial investment return assumption is 6.0%.

The asset distribution of the System's investment portfolio at December 31, 2008, 2007, and 2006 at fair market value is listed on the chart on page 20.

### **FIXED INCOME**

Fixed income decreased approximately \$88 million from December 31, 2007, to December 31, 2008, primarily due to asset allocation rebalancing. Fixed income increased approximately \$23 million from December 31, 2006, to December 31, 2007, primarily due to income earned during 2007, as well as asset allocation rebalancing.

### **COMMON AND PREFERRED STOCK**

Common and preferred stock including international stock decreased approximately \$326 million from December 31, 2007, to December 31, 2008, due to depreciation in domestic and international markets as well as asset allocation rebalancing, and increased approximately \$17 million from December 31, 2006, to December 2007, primarily due to appreciation in the domestic and international equity markets.

### **SECURITIES LENDING**

In early August 2008, the Board decided to exit the Securities Lending Program. The System had \$0 and \$96,875,675 of cash collateral invested in the custodial agent's short-term collateral investment pool as of December 31, 2008, and 2007, respectively.

### **REAL ESTATE EQUITY**

Real estate equity increased approximately \$27 million from December 31, 2007, to December 31, 2008. The increase was the result of additional allocations of real estate properties. Real estate equity increased approximately \$49 million from December 31, 2006, to December 31, 2007, as a result of market appreciation in fair value.

### CONTRIBUTIONS AND INVESTMENT INCOME

During 2008, contributions from employers and members totaled \$49.7 million compared to \$46.8 million during 2007 and \$37.7 million during 2006. Net investment losses during 2008 were \$387 million compared to net investment gains of \$115 million during 2007 and net investment gains of \$161 million during 2006. Investment gains/losses were primarily attributable to appreciation/depreciation in fair values in the domestic and international equity markets as well as real estate equity during the last two years. Investment expenses increased \$0.5 million from \$5.6 million during 2007 to \$6.1 million during 2008 and \$0.5 million from \$5.1 million during 2006 to \$5.6 million during 2007 based on the increase in fair value of investments under management.

### PENSION PLAN BENEFITS AND EXPENSES

The primary source of expense during 2008 was for payment of pension benefits totaling \$53.8 million compared to \$49.9 million during 2007 and \$62.5 million during 2006. Pension benefits increased by \$3.8 million from 2007 to 2008. Pension benefits decreased by \$12.6 from 2006 to 2007. Administrative expenses increased by \$0.1 million to \$3.0 million for 2008. Expenses remained basically unchanged at \$2.9 million for 2007 and 2006. Administrative expenses were within PMRS' budgeted amounts for all three years.

### **FINANCIAL CONTACT**

The System's financial statements are designed to present users with a general overview of the System's finances and to demonstrate the trustee's accountability. If you have any questions about the report or need additional information, contact the Chief, Accounting Division of Commonwealth of Pennsylvania, Pennsylvania Municipal Retirement System at P. O. Box 1165, Harrisburg, PA 17108-1165.

The Pennsylvania Municipal Retirement System FINANCIAL

### **Asset Distribution at Fair Market Value**

### **Asset Distribution at Fair Market Value**

	2008	%	2007	%	2006	%
Asset Class			(In Thou	usands)		
Short term	\$ 31,696	2.7%	\$ 40,116	2.6%	\$ 20,978	1.4%
Fixed income	263,054	22.6	350,661	22.5	328,004	22.6
Common preferred stock	503,506	43.2	771,519	49.4	747,162	51.4
International stock	193,729	16.6	252,249	16.1	259,930	17.9
Real estate equity	173,048	14.9	146,522	9.4	97,025	6.7
Total	\$1,165,033	100.0%	\$1,561,067	100.0%	\$1,453,099	100.0%

# **Statements of Plan Net Assets**

As of December 31, 2008, and 2007

Assets	2008	2007
Receivables		
Plan members	\$ 1,924,719	\$ 2,339,058
Municipal employers	2,904,762	3,554,246
Accrued investment income	4,371,362	1,597,596
Investment sales receivable	3,188,463	8,847,217
Total receivables	12,389,306	16,338,117
Investments, at fair value		
Short-term and other investments	31,696,129	40,116,013
U.S. Government bonds	193,660,279	249,635,372
Corporate bonds	69,393,618	101,025,356
Common and Preferred stocks	503,506,353	771,518,535
Real estate equity	173,048,076	146,522,406
International equities	193,728,502	252,249,203
Total investments	1,165,032,957	1,561,066,885
Securities lending collateral pool	-	96,875,675
Capital assets (net of accumulated depreciation of \$204,391.35 and \$242,167 respectively)	228,671	223,890
Total assets	\$1,177,650,934	\$1,674,504,567
Liabilities		
Accounts payable and accrued expenses	1,604,180	1,891,877
Investment purchases payable	5,414,930	10,963,313
Collateral held under securities lending program	-	96,875,675
Total liabilities	7,019,110	109,730,865
Net Assets Held in Trust For Pension Benefits	\$1,170,631,824	\$1,564,773,702

(A schedule of funding progress is presented in the Required Supplementary Information section.)

The accompanying notes are an integral part of the financial statements.

# Statements of Changes in Plan Net Assets Years Ended December 31, 2008, and 2007

Additions	2008	2007
Contributions		
Plan members	\$ 17,870,426	\$ 17,491,672
Municipal employers	31,532,859	29,059,248
Assessments	290,320	282,628
Total contributions	49,693,605	46,833,548
Investment income/(loss)		
From investing activities:		
Net appreciation/(depreciation) in fair value of investments	(407,656,237)	96,708,126
Short-term and other investments	674,503	1,909,544
Common and Preferred stocks	12,093,339	10,388,051
Real estate equity	7,927,482	5,745,768
International equities	4,458,381	4,274,010
Miscellaneous income	107,122	325,643
Less investment expenses	(6,128,828)	(5,599,795)
Total investing activities income/(loss)	(388,524,238)	113,751,347
Securities lending activity		
Securities lending income/(loss)	2,894,813	5,959,496
Less: Securities lending expenses	(1,448,177)	(4,872,037)
Net securities lending activity	1,446,636	1,087,459
Net investment income/(loss)	(387,077,602)	114,838,806
Total additions	(337,383,997)	161,672,354
Deductions	_	
Annuity benefits	46,173,544	42,898,882
Terminations	7,597,681	7,006,182
Administrative expenses	2,986,656	2,862,482
Total deductions	56,757,881	52,767,546
Net increase/(decrease)	(394,141,878)	108,904,808
Net assets held in trust for pension benefits		
Balance, beginning of year	1,564,773,702	1,455,868,894
Balance, end of year	\$1,170,631,824	\$1,564,773,702

# (1) Organization and Description of the System

### **ORGANIZATION**

The Pennsylvania Municipal Retirement System (the System) was created by the Pennsylvania General Assembly in 1974 with the passage of the Pennsylvania Municipal Retirement Law, Act of 1974, P.L. 34, No. 15 (the Act). The System is an agent multiple-employer system, and its designated purpose is to administer sound, cost-effective pensions for local government employees. Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board (the Board). Under the Act, each individual municipality has authority to establish or amend its respective benefits and employee contribution rates subject to Board approval. Employer contributions are actuarially determined by the System's actuary.

Membership in the System is optional for Pennsylvania's local governments. When a municipality joins the System, its permanent employees contractually become members. Seasonal and temporary employees as well as elected officials may also become members through contractual agreement. As of January 1, 2008, there were 692 municipalities with defined benefits and 183 with defined contributions. The tables (at right) reflect municipal membership and individual membership.

### **PENSION BENEFITS**

The System has the broad authority of enabling a municipality to design its own retirement benefit structure. As an alternative, the System has two basic benefit structures: one for municipal employees (Article II of the Act) and one for uniformed employees (police and fire fighters) (Article III of the Act). Certain elected officials are not permitted to become System members, as outlined in individual municipal ordinances. Members are eligible for monthly retirement benefits upon reaching the age of 65 and 55,

### **Participating Local Government Employers**

	Defined Benefits	Defined Contributions
Counties	4	0
Cities	19	0
Boroughs	146	24
Townships of the First Class	18	1
Townships of the Second Class	154	99
Authorities and Other Units	169	51
Police	174	8
Firefighters	8	0
Total	692	183

### **Individual Membership**

Active Members	
Defined Benefit Plans	
Municipal	7,496
Police	752
Firefighters	135
Total	8,383
Defined Contributions Plans	
Municipal	941
Police	g
Firefighters	(
Total	950
Total active members	9,333
Retirees and Beneficiaries	
Retirees	3,173
Beneficiaries	425
Total retirees and beneficiaries	3,598
Inactive Participants with Rights to Deferred Pension	(Vested)
Defined benefit	570
Defined contributions	174
Total vested	744
Defined benefit	7
Defined contribution	(
Total non-vested	7
Total individual memberships	13,682

under Articles II and III, respectively, or upon accumulating 24 years of service. Under Articles II and III of the Act, vesting occurs after 12 years of service.

Such benefits under Articles II and III are generally equal to (a) the actuarial value of the members' contributions and (b) a municipal annuity that is based upon a percentage of a member's salary or compensation.

The benefit structures also provide death, disability, and early retirement benefits. These benefit provisions and all other requirements are established under Articles II and III of the Act.

Under Article IV of the Act, municipalities may provide for benefits different from those available under Articles II and III. Vesting provisions, if any, under Article IV may vary.

Automatic postretirement benefit increases are optional in plan contracts. Some plan member municipalities include the automatic increase; others occasionally grant an ad hoc cost-of-living (COLA) increase. The most common method of granting a COLA is through the System's excess interest award. (See Note 3 for an explanation of excess interest.)

Member municipalities interested in amending benefits contact the System's staff to discuss desired amendments and to obtain a cost study. Amendments are submitted to the System's staff, reviewed by the Chief Counsel's Office to be certain everything is in order, and submitted to the Board for formal approval.

# (2) Significant Accounting Policies

### **BASIS OF ACCOUNTING**

The System's financial statements are prepared on the accrual basis of accounting. Employee and employer contributions are recognized in the period in which the contributions are due. Benefits and refunds are

recognized when due and payable in accordance with the terms of each plan. Expenses are recorded when the corresponding liabilities are incurred.

# USE OF ESTIMATES IN PREPARING FINANCIAL STATEMENTS

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions and deductions during the reported period. Actual results could differ from those estimates.

### **INVESTMENTS**

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgage-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on estimated current values and independent appraisals performed every three years. In years for which an appraisal is not performed, real estate investments and investments that do not have an established market value are reviewed by the investment manager and adjusted to reflect estimated fair values. Real estate property purchased by the System within twelve months of the year-end is generally reported at the purchase price, plus any costs capitalized since the purchase, which is deemed to approximate the real estate property's fair value. Purchases and sales of investments are recorded on a trade-date basis.

### **CAPITAL ASSETS**

Capital assets, primarily office furniture, software and equipment, are recorded at cost. Depreciation is provided on the straight-line method over the esti-

mated useful lives of the assets, typically three years for software and eight years for office furniture and equipment.

### FEDERAL INCOME TAXES

Management believes the System meets the definition of a Governmental Plan. In the System's communications with the Internal Revenue Service (IRS), it has been treated as a qualified plan, and is, therefore, considered exempt from federal income taxes. Additionally, the System has retained legal counsel to assist in preparing an explanation of any possible compliance issue in association with the tax qualification status of the plan.

# (3) Contributions and Reserves

### **CONTRIBUTIONS**

Contributions to the System are made by members and municipalities. Under Articles II and III of the Act, members are required to contribute 3% to 8% of their salary. The amount a member contributes under Article IV of the Act is based upon contracted plan provisions and is principally expressed as a percent of compensation or salary. The contributions required of municipalities are based upon an actuarial valuation, using the Entry Age Normal Actuarial Cost Method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined. The required contributions from municipalities for the years ended December 31, 2007, and 2008 consisted of the following:

	2008	2007
Municipality normal cost	\$36,584,175	\$36,594,509
Amortization of unfunded actuarial accrued liability	(7,283,797)	(9,476,074)
Total (1)	\$29,300,378	\$27,118,435

Total contributions to the System during 2008 amounted to \$49,693,605 of which \$17,870,426 and \$31,532,859 were made by its members and municipalities, respectively and \$290,320 was from assessments.

Total contributions to the System during 2007 were \$46,833,548 of which \$17,491,672 and \$29,059,248 were made by its members and municipalities, respectively and \$282,628 was from assessments.

The difference between the municipalities' required and actual contributions is due to the municipalities transferring state aid money to the System as required under the Municipal Pension Plan Funding Standard and Recovery Act of 1984 (Act 205).

Each municipality is also charged a \$20 assessment per member to help cover administrative expenses incurred by the System. The remaining costs of administering the plan are financed by investment income.

# CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The System's funding policy requires actuarially determined annual required contributions (ARC) of plan member municipalities at rates that accumulate sufficient assets to pay benefits when due. The System's actuary used the Entry Age Normal Actuarial Cost Method to determine plan liabilities and normal cost. Under this method, a normal cost is calculated that would fund each employee's benefits during the employee's career as a level percent of pay.

At each valuation date, the unfunded actuarial accrued liability is calculated as the present value of all plan benefits, less the present value of future normal cost accruals, less current assets (actuarial value).

The normal cost rate is applied to the projected payroll, and projected employee contributions are deducted. Actuarial gains (or losses) are reflected by decreases (or increases) in the unfunded actuarial ac-

<sup>(1)</sup> Total does not include \$20 per member administrative charges to municipalities.

crued liability. Under Act 205, the unfunded accrued liability is being amortized as a level dollar amount over the lesser of:

- 1. a. 30 years with respect to the initial liability as of January 1, 1985 (or first valuation);
  - b. 20 years with respect to changes due to plan provisions and actuarial assumptions;
  - c. 10 years with respect to changes in benefits for current retired members:
  - d. 15 years with respect to actuarial gains and losses; or
- the average assumed working lifetime of active employees as of the date the liability was established.

Significant actuarial assumptions used to compute the actuarially determined contribution requirement include (a) a rate of return on the investment of present and future assets of 6.0% a year (net of investment and certain administrative expenses) compounded annually, (b) projected salary increases of 3.0% a year compounded annually for inflation, with an additional age-based component to reflect merit/seniority, (c) postretirement cost-of-living increases of 3.0% per annum until the maximum is reached (optional in contracts), and (d) pre- and post-retirement mortality based on the 1994 Group Annuity Mortality Static Table for males and females, and an additional set forward of 10 years for disabled lives.

### RESERVE DESCRIPTIONS

The Act defines the following funds to be maintained by the System:

### **Members' Reserve Account**

The Members' Reserve Account is credited with all contributions made by active members of the System. Interest is added to each member's individual account at an annual rate determined by the Board. The System's current interest rate is 6.0%.

Upon retirement or disability of an active member, the member's accumulated contributions plus interest are transferred to the Retired Members' Reserve Account for subsequent benefit payments. Withdrawals of members' contributions not eligible for benefits are paid from this reserve.

As of December 31, 2008, and 2007, the balance in the Members' Reserve Account was \$368,673,298 and \$351,521,038, respectively. The account is fully funded

### **Municipal Accounts**

Separate municipal accounts are maintained for each municipality. The Municipal Reserve Account is credited with each municipality's contributions toward the superannuation retirement and death benefits of its members. Annual interest is added to each separate municipal account at the current rate of 6.0%.

As of December 31, 2008, and 2007, the balance in the Municipal Reserve Account was \$688,576,068 and \$653,176,044, respectively. The account is fully funded.

### **Retired Members' Reserve Account**

The Retired Members' Reserve Account represents the amounts transferred from the Members' Reserve Account, the Municipal Accounts, and the Disability Reserve Account. All retirement and retirees' death benefits plus voluntary and involuntary early retirements are paid from this reserve. Annual interest is credited to the Retired Members' Account at the current rate of 6.0%.

As of December 31, 2008, and 2007, the balance in the Retired Members' Reserve Account was \$479,026,087 and \$450,043,306, respectively. The account is fully funded.

### **Disability Reserve Account**

The Disability Reserve Account is credited with the contributions made by municipalities toward the disability retirement of member employees. The disability reserves are limited to 150% of the largest value of transfers to retired reserves over the most recent three years.

As of December 31, 2008, and 2007, the balance in the Disability Reserve Account was \$502,489 and \$33,254, respectively. The account is fully funded.

### **Undistributed Earnings Designation**

In addition to regular interest, the System may also award excess interest. Excess interest is investment earnings on the System's assets in excess of that required for allocation to regular interest and administrative expenses. Rates for excess interest are determined annually by the Board with advice from the System's actuary. The excess interest is distributed to the member accounts, the municipal accounts, and the retiree accounts as directed by the municipality.

The System did not distribute excess interest in 2008. The System approved the distribution of excess interest at a rate of 3.12% during 2007. The calculation of excess interest was prepared in accordance with the Board approved formula and was based on the actuarial value (fair value) of the System's assets as of December 31, 2006, and the cash flows of the System for 2007. The December 31, 2007, distribution amounted to \$41,652,000.

As of December 31, 2008, and 2007, the Undistributed Earnings Designation Account had a balance of \$(366,146,118) and \$110,000,060, respectively.

# (4) Investments

Members of the Board are trustees of the System's assets. They have exclusive responsibility for the management of such assets and have full power to

invest the System's assets, subject to the terms, conditions, limitations, and restrictions imposed by law upon fiduciaries.

The Board has authorized investments in U.S. Government and agency securities, foreign government bonds denominated in U.S. dollars and rated "AA," corporate bonds rated "A" or better, equity securities, direct real estate, and real estate commingled funds allowing for equity participation. The Board specifically prohibits investments in commodities, mineral rights, and options. Additionally, short-selling and margin purchase transactions are prohibited.

The Board achieves day-to-day management of the investment portfolio through the use of investment managers. Restrictions concerning diversification within each manager and among managers are provided by adopted investment policy.

The System invests in the Commonwealth of Pennsylvania Treasury Department's short-term cash management fund. The fund comprises various short-term investments, including repurchase agreements. Restrictions on these repurchase agreements are outlined below.

Repurchase agreements are allowable if (a) collateralized by United States Government Obligations deemed acceptable by the Treasury Department prior to the transaction; (b) the market value of collateral shall equal at least 102% of the principal and accrued interest; and (c) the collateral is delivered to the Treasury's bank account. For tri-party agreements, collateral shall be delivered to the Treasury's account with an independent third party subcustodian (either a money center bank or a nationally recognized non-bank financial institution).

### **CUSTODIAL CREDIT RISK**

The System's exposure to the risk of loss of investments due to errors and omissions on behalf of its advisors is covered by the contractual obligation for the advisors to maintain errors and omissions insurance.

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The investment managers also must provide proof of a fidelity bond covering the advisor, the office, and its employees.

In accordance with a contract between the Treasurer of the Commonwealth of Pennsylvania and the Treasurer's custodial agent, the System may participate in a securities lending program. Under this program, the custodial agent, acting as the lending agent, lends securities (equities, fixed income, and money market instruments) to independent brokers and dealers in exchange for collateral in amounts up to 105% of the fair value of securities lent. Collateral is marked-tomarket daily. If the fair value of the collateral held falls below the minimum guidelines for securities lent, additional collateral is obtained. In lieu of securities or cash, the borrower may deliver to the lending agent irrevocable bank letters of credit, government securities, or repurchase agreements as collateral. If the collateral obtained consists in whole or in part of cash, the lending agent may use or invest the cash in accordance with reinvestment guidelines approved by the State Treasurer.

All securities loans can be terminated on demand by either the System or the borrower. Cash collateral is invested in the lending agent's short-term investment pool. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of the securities loans made by other entities that use the lending agent's pool, which the System cannot determine. The System cannot pledge or sell collateral securities received unless the borrower defaults.

As of December 31, 2008, the System had no credit risk exposure to borrowers because participation in the program was temporarily halted in 2008.

### **CREDIT RISK CONCENTRATION**

Investments (other than those issued or guaranteed by the U.S. Government) in any one organization that represented 5% or more of the plan's net assets at December 31, 2008, and 2007 were:

### **Credit Risk Concentration**

Security	Fair Value
2008	
State Street Index Fund	\$407,174,039
Prudential Property Investment Separate Account (PRISA)	\$83,260,183
Forest Investment Associates	\$59,296,728
2007	
State Street Index Fund	\$488,683,520
Prudential Property Investment Separate Account (PRISA)	\$117,910,339

### **INTEREST RATE RISK**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of a fixed income investment. The System had no actively managed long-term fixed income investments. The fixed-income portfolio consists of the following:

### 2008 Interest Rate Risk

Security	Quality Rating*	Modified- Adjusted Duration	Fair Value
Barclays Capital US Aggregate Fund	AA	3.7	\$263,053,898
Short-Term Investment Fund	NR	0.1	\$ 27,795,229

<sup>\*</sup> Index is not rated as a security but the average rating of the securities held in the index is AA2

### 2007 Interest Rate Risk

Security	Quality Rating*	Modified- Adjusted Duration	Fair Value
Lehman Brothers Aggregate Fund	AA	4.4	\$350,660,728
Short-Term Investment Fund	NR	0.1	\$ 39,078,782

<sup>\*</sup> Index is not rated as a security but the average rating of the securities held in the index is AA2

### **FOREIGN CURRENCY RISK**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. As part of the System's program of diversification, the System invests in non-U.S. markets. At December 31, 2008, the System had the following non-U.S. currency exposure.

### 2008 Foreign Currency Risk

Currency	Equity	Short-Term	Total
Euro Currency Unit	\$36,658,079	\$282,678	\$36,940,757
Japanese Yen	26,581,626	56,370	26,637,996
British Pound Sterling	22,535,940	230,705	22,766,645
Swiss Franc	15,761,079	501,479	16,262,558
Canadian Dollar	4,736,610	7,960	4,744,570
Singapore Dollar	3,457,810	37,227	3,495,037
Australian Dollar	3,187,682	273	3,187,955
Norwegian Krone	3,181,918	3,811	3,185,729
Swedish Krona	2,496,498	2,979	2,499,477
Non-U.S. Currencies	2,587,523	179,820	2,767,343

### 2007 Foreign Currency Risk

Currency	Equity	Short-Term	Total
Euro Currency Unit	\$66,538,962	\$8,131	\$66,547,093
British Pound Sterling	46,201,442	191,877	46,393,319
Japanese Yen	36,557,389	160,352	36,717,741
Swiss Franc	18,000,537	187,396	18,187,933
Australian Dollar	9,468,069	318,465	9,786,534
Canadian Dollar	7,756,839	328,862	8,085,701
Singapore Dollar	6,990,351	13,135	7,003,486
Norwegian Krone	5,528,957	225	5,529,182
South Korean Won	4,785,753	0	4,785,753
Non-U.S. Currencies	8,655,773	11,790	8,667,563

# (5) Securities Lending

Under the securities lending program, the lending agent provides indemnification to the Commonwealth if the borrowers fail to return the underlying securities (and the collateral is inadequate to replace the securities lent) or fail to pay income distribution on them. As of December 31, 2008, and December 31, 2007, the System's carrying value and fair value of lent

securities was \$0 and \$92,110,192, respectively. The fair value of associated collateral was \$0 as of December 31, 2008, and \$96,875,675 as of December 31, 2007. The System's income, net of expenses, from securities lending was \$1,446,336 for 2008 and \$1,087,459 for 2007.

The System had \$0 and \$96,875,675 of cash collateral invested in the custodial agent's short-term collateral investment pool as of December 31, 2008, and 2007, respectively.

# (6) Pension Plan for Employees of the System

The System contributes to the Commonwealth's State Employee's Retirement System (SERS), a cost-sharing multiple-employer defined benefit pension plan. SERS provides retirement, death, and disability benefits to plan members and beneficiaries according to Commonwealth statute. SERS issues a publicly available financial report that can be obtained by writing to SERS, 30 N. Third Street, P.O. Box 1147, Harrisburg, Pennsylvania 17108-1147.

The contribution requirements of plan members and the System are mandated by Commonwealth statute. Most SERS plan members are required to contribute 5.0% or 6.25% of the annual covered payroll depending upon service class. The System is required to contribute at an actuarially determined rate. The rates applied to annual covered payroll were 3.29% at July 1, 2008, 3.28% at July 1, 2007, and 3.23% at July 1, 2006. The System's annual required contributions to SERS for the years ending December 31, 2008, and December 31, 2007, were \$42,638 and \$40,075 respectively.

# (7) Relationships with Other Commonwealth Agencies

Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board. The State Treasurer and the Secretary of the Commonwealth serve on the Board by virtue of statute. Eight Board members are also appointed by the Governor after being nominated by their respective organizations. One member each represents the Pennsylvania League of Cities, Pennsylvania Municipal Authorities Association, Pennsylvania State Association of Boroughs, Pennsylvania State Association of County Commissioners, Pennsylvania State Association of Township Commissioners, Pennsylvania State Association of Township Supervisors, the active police officers, and the active firefighters. In addition, one Board position is filled by a retired member of the System. Interested individuals submit an application, and then the Governor appoints someone from the list of applicants.

The System is not included as a component unit of the Commonwealth of Pennsylvania for financial reporting purposes because the System is not financially accountable to the Commonwealth as there is no imposition of will, no financial benefit/burden, nor fiscal dependency associated with the System toward the Commonwealth.

# (8) Plan Termination

Member municipalities may withdraw from the System if the conditions for withdrawal under the Act have been met. Requirements include a minimum of five years of membership and approval of the Board. In the event of withdrawal, a municipality is entitled to receive a net refund of the amount then standing to the credit of the municipality in the municipal account, the member employees' account, and the retired members' reserve account. In no event shall the municipality refund exceed the pro rata interest of the withdrawing municipality in the net assets of the entire fund based on market value of the fund investments as of the date of receipt of the application for permission to withdraw. Liability for any continuation of retirement or disability benefits being paid from the System shall attach to the withdrawing municipality.

# (9) Risk Management

Exposure of the System through Board or staff activity is covered by various means. The System acts under the cover of sovereign immunity, participation in the Employee Liability Self-Insurance Program of the Commonwealth of Pennsylvania, the Commonwealth's fidelity bond, and the State Insurance Fund. The Board also adopted a self-insurance indemnification policy in 2004. There have been no significant reductions in insurance coverage from the prior year. Settlements did not exceed insurance coverage for the past three fiscal years.

The System's implementation policy is to allow contracted external managers to decide what action to take regarding their respective portfolio's foreign currency exposures. The System has no specific policies for interest rate risk and foreign currency risk.

# (10) Commitments and Contingencies

PMRS leases office facilities under an operating lease that expires November 2011. Future minimum lease payments under this lease are as follows:

> 2009 - \$108,750 2010 - 108,750 2011 - 99,688

Total rental expenses for the years ended December 31, 2008, and 2007 were \$107,169 and \$106,337, respectively.

The System has remained committed to fund a real estate investment of approximately \$65.7 million at December 31, 2008. The System had no commitments as of December 31, 2007. The expected funding date for this commitment extends through 2017, with two one-year extensions, if needed.

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# (11) Additional Plan Disclosures as Mandated by GASB 50

### (a) Plan Description

The Pennsylvania Municipal Retirement System (the System) was created by the Pennsylvania General Assembly in 1974 with the passage of the Pennsylvania Municipal Retirement Law, Act of 1974, P.L. 34, No. 15 (the Act). The System is an agent multipleemployer system, and its designated purpose is to administer sound, cost-effective pensions for local government employees. Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board (the Board). Under the Act, each individual municipality has authority to establish or amend its respective benefits and employee contribution rates subject to Board approval. Employer contributions are actuarially determined by the System's actuary. The System issues a publicly available financial report that includes financial statements and required supplementary information.

The System's investments are reported at fair value as discussed in Note 2 Summary of Significant Accounting Policies. The annual required contribution (ARC) is actuarially determined. The System's actuary used the Entry Age Normal Cost Actuarial Method to determine plan liabilities and normal cost. Under this method, a normal cost is calculated that would fund each employee's benefits during the employee's career as a level percent of pay.

### (b) Funding Status and Funding Progress

As of January 1, 2008, the most recent actuarial valuation date, the plan was 105.9 % funded. The actuarial accrued liability for benefits was \$1,376,536,031, and the actuarial value of assets was \$1,458,148,442, resulting in an unfunded actuarial accrued liability (UAAL) of (\$81,612,411). The covered payroll (annual payroll of active employees covered by the plan) was \$364,865,185, and the ratio of the UAAL to the covered payroll was (22.4%) percent.

The schedule of funding progress, presented in the actuarial section, following the notes to the financial statements, presents multiyear trend information about whether the actuarial value of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

### (c) Actuarial Methods and Assumptions

In the most recent actuarial valuation, the Entry Age Normal Actuarial Cost Method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined was used. The actuarial assumptions included (a) 6.0 % investment rate of return and, (b) projected salary increases ranging from 3.0 to 7.8 % with an average increase of 5.0 %, including a 3.0 % rate of inflation. The assumptions did not include a cost-of-living adjustment. The remaining amortization period at January 1, 2008, was 10-30 years.

## (12) Risk and Uncertainties

Investments are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investments, it is possible that changes in the values of investment securities may occur in the near term and such changes could materially affect the amounts reported in the financial statements.

# **Required Supplemental Information**

Schedule 1
Schedule of Funding Progress (1)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
1/1/2008	\$1,458,148,442	\$1,376,536,031	\$(81,612,411)	105.9% (2)	\$364,865,185	(22.4)%
1/1/2007	1,336,009,295	1,282,021,998	(53,987,297)	104.2	358,690,830	(15.1)
1/1/2005	1,219,130,000	1,154,858,200	(64,271,800)	105.6	319,004,918	(20.1)
1/1/2003	1,084,828,900	955,259,400	(129,569,500)	113.6	293,388,800	(44.2)
1/1/2001	976,868,000	812,645,100	(164,222,900)	120.2	282,113,600	(58.2)

See accompanying notes to required supplementary schedules.

Schedule 2
Schedule of Required Employer Contributions for Last Six Years

Year Ended December 31	Annual Required Contributions (ARC) (3)	Actual Employer Contribution	Percentage Contributed <sup>(4)</sup>
2008	\$29,300,378	\$31,532,859	108%
2007	27,118,435	29,059,248	107
2006	17,182,233	21,148,089	123
2005	16,235,077	19,890,494	123
2004	13,390,022	17,041,418	127
2003	12,656,513	14,696,210	116

See accompanying notes to required supplementary schedules.

<sup>(1)</sup> The System has historically chosen to have actuarial valuations performed bi-annually for purposes of calculating the actuarial accrued liability as allowed by GASB Statement No. 25. No actuarial valuation was performed as of January 1, 2006, January 1, 2004, or January 1, 2002, except for those plans required to redetermine contribution requirements. A January 1, 2008, actuarial valuation was performed. The January 1, 2008, actuarial valuation was derived from actual values for the four defined benefit plans that are required to redetermine contribution levels bi-annually for even years, and actuarial adjustments to the January 1, 2007, liabilities for those municipalities required to redetermine contribution levels bi-annually for odd years. The January 1, 2007, liabilities were adjusted to reflect January 1, 2008, actual active counts to estimate the liabilities for these plans to provide an overall measure of the funded status of the System.

During the year ended December 31, 2008, the System experienced an investment loss of 24.8%. The impact of the current year loss on the schedules of funding progress is likely to significantly impact the ratio of valuation assets to the actuarial accrued liabilities. While this ratio was 105.9% at January 1, 2008, it is probable that the funding ratio will be below 100% when the January 1, 2009, actuarial valuation is completed. We note here that the impact of the investment loss during the year ended December 31, 2008, on the future actuarial valuation of assets has not been determined and could have a significant impact on the ratio of the assets to actuarial accrued liabilities for the System in future years.

<sup>(3)</sup> The Annual Required Contribution is calculated using the actuary's determined Normal Cost percentage for each plan and the employer' anticipated payroll for each participation plan. It also may include the amortization payment calculated by the actuary or the over-funding credit required under Pennsylvania state law, Act 205 of 1984. The composite figure is assembled by the Agency's staff.

<sup>(4)</sup> The difference between the municipalities' required contributions and the percentage contributed is due to various factors including plan takeovers and the municipalities transferring state aid money to the System as required under the Municipal Pension Plan Funding Standard and Recovery Act of 1984 (Act 205).

### **Actuarial Methods and Significant Assumptions**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

Valuation date January 1, 2008 Actuarial cost method Entry age normal Amortization method Level dollar open - 30 years with respect to the initial liability as of January 1, Remaining amortization period 1985 (or first valuation) - 20 years with respect to changes due to plan provisions and actuarial assumptions - 15 years with respect to actuarial gains and losses, or the average assumed working lifetime of active employees as of the date the liability was established - 10 years with respect to changes in benefits for currently retired members Asset valuation method sum of all audited reserve accounts plus any additional investment income to be distributed as excess interest **ACTUARIAL ASSUMPTIONS** 6.0% compounded annually (net of investment and certain administration expenses) Projected salary increases 3.0% inflation and age-related scale for merit/seniority (ex., age 30 - 5.9%; age 40 - 4.5%; age 50 - 4.1%) Inflation at 3.0% Post-retirement cost-of-living 3.0% per annum until maximum is reached (optional in adjustments contracts)

## **Supplemental Schedules**

Years Ended December 31, 2008, and 2007

# Schedule 3 - Administrative Expenses Comparative Two-Year Schedule

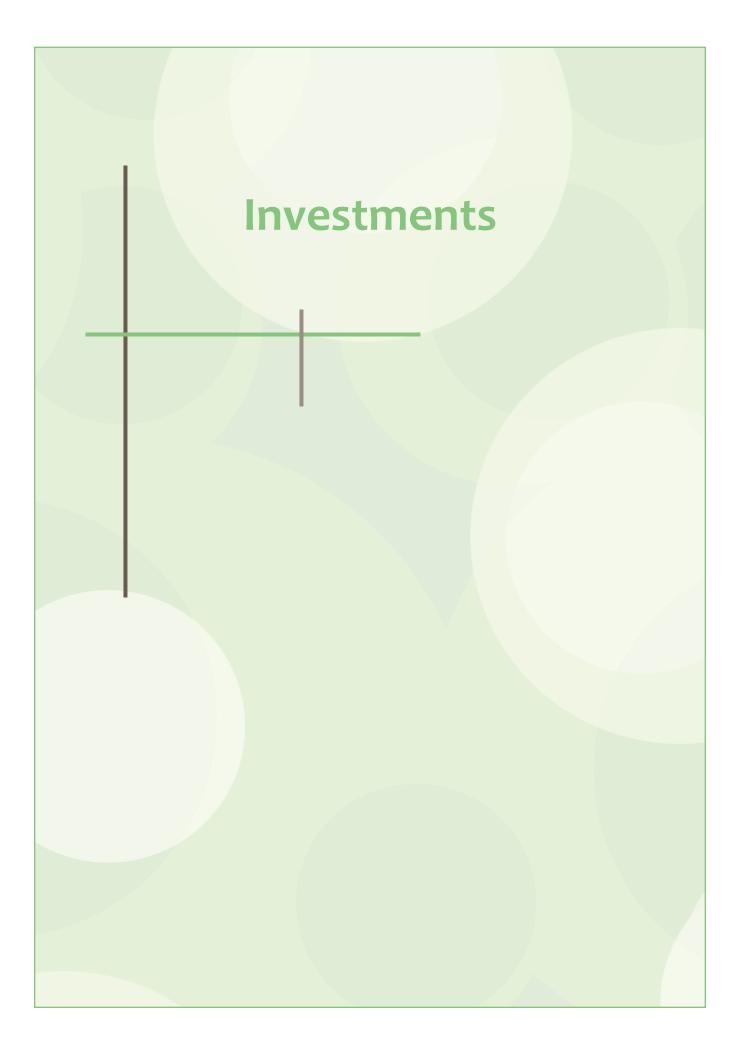
	2008	2007
PERSONNEL COSTS		
Salaries and wages	\$1,335,559	\$1,281,414
Social security contributions	98,045	92,397
Retirement contributions	42,638	40,075
Insurance contributions	438,964	379,718
Other employee benefits	5,818	8,341
Total personnel costs	1,921,024	1,801,945
PROFESSIONAL COSTS		
Performance evaluation	109,000	109,158
Actuarial	275,043	242,159
Data processing	13,665	13,034
Audit	95,100	90,600
Legal	94,383	94,614
Miscellaneous professional	80,051	97,679
Total professional costs	667,242	647,244
COMMUNICATION COSTS		
Printing	18,686	11,157
Telephone	20,458	12,671
Postage	47,577	38,646
Travel	25,042	20,085
Advertising	3,525	3,778
Total communication costs	115,288	86,337
OTHER SERVICES AND CHARGES		
Contracted EDP services	73,242	67,518
Office space rental	107,169	106,337
Equipment leasing	4,613	4,527
Supplies	26,705	25,329
Maintenance	9,469	29,088
Bonding and insurance	1,834	1,888
Dues and subscriptions	2,795	2,705
Total other services and charges	225,827	237,392
DEPRECIATION	57,275	89,564
Total administrative expenses	\$2,986,656	\$2,862,482

# Schedule 4 - Investment Expenses Comparative Two-Year Schedule

	2008	2007
Investment management fees	\$6,120,345	\$5,591,833
Custodial fees	8,483	7,962
Total investment expenses	\$6,128,828	\$5,599,795

Schedule 5 - Payments to Consultants
Comparative Two-Year Schedule
Years Ended December 31, 2008, and 2007

Firm Name	Nature of Service	2008	2007
Clifton Gunderson, LLP	Auditor	\$ 95,100	\$ 90,600
Dahab Associates, Inc.	Investment Consultant	109,000	109,158
The Segal Company	Actuary	0	40,740
Cheiron	Actuary	275,043	201,419
Total		\$479,143	\$441,917



### **Report on Investment Activity**

#### **INVESTMENT RETURN**

On December 31st, 2008, the Pennsylvania Municipal Retirement Board's investment portfolio was valued at \$1,163,626,000, which was a decrease of \$396,216,000 from the December 2007 ending valuation of \$1,559,842,000. During the calendar year of 2008, the System recorded aggregate net withdrawals of \$10,953,877 and a net investment return of \$(385,262,123).

For the period between January 1, 2004, and December 31, 2008, the System recorded net withdrawals totaling \$87,948,338 and a net investment return of \$143,199,338. If the fund had earned an annualized compounded rate of 6.0% during that period, it would have been worth \$1,379,519,000, or \$215,893,000 more than the actual value at the end of the year.

#### **ECONOMIC ENVIRONMENT**

The economic environment through 2008 can perhaps be best described as an economic "ice age." The corrections seen towards the end of 2007 have evolved into a global pandemic; governments everywhere are trying figure out how to cope with the worst economic downturn since the Great Depression. From multibillion dollar stimulus packages to slashed interest rates, nothing is off the table to help stem the current freefall seen in the market.

Financial institutions, domestic and abroad, led the decline. As fallout from the sub-prime mortgage crises continued to spread, credit froze up and corporations and small business alike struggled to find liquidity. It was very quickly realized that many of the risky investments and leveraging involved in major institutions' portfolios were coming back to haunt them. When these toxic assets started failing, banks, hedge funds, and worried investors started buying up any liquid assets left to find. Many of these institutions were unable to recover and were forced into bankruptcy, including the demise of Lehman Brothers in September.

The lack of capital contributed to a massive slow-down of the economy. Consumers, many of whom had lost their jobs and many others sensing the instability in the market, started spending far less than previously. Retailers experienced the worst Christmas sales in recent memory, automobile sales plummeted leaving American auto manufacturers scrambling to stay afloat, and oil demand dropped for the first time in years.

Unemployment rose dramatically, to 7.2%, representing a loss of 2.6 million jobs. Workers are being laid off in nearly every sector of the economy, from computer manufacturers to government employees to the hundreds of thousands of workers at auto manufacturing plants.

Industrial capacity fell well below norms as well, falling to 73.6% at the end of the year. This was a 7.8% drop for the year. Most of the drop came from the manufacturing industry, which ended the year at 70.2% capacity.

Inflation was one of a few positive points for the year; for the year, the CPI-U rose only 0.1%. That figure hides the fact though, that only the fourth quarter's 3.4% drop kept that figure so low. The large drop was significantly influenced by the price of oil, which went from a high of about \$147 a barrel in July to settle in the \$40 range.

The US dollar made gains against most major currencies, ending the year at \$1.36/euro after touching a high of \$1.25/euro. This figure reflects the relative interest rates between US Treasuries and European banks.

The US trade deficit also fell despite a significant decline in exports of goods and services. The reason for this is that imports fell faster than exports, led by large decreases in demand from American consumers. The effect of this helped to slightly dampen the downward spiral the economy was experiencing.

Note: The System's investment assets reported in the Investment Section are presented on the same basis of accounting as described in Note 1 of the Notes to Financial Statements with the following exceptions: The Investment Section includes those investments under management of advisors which are under contract by the agency and does not include pending sales and purchases. The investment consultant, Dahab Associates, oversees these investments. In addition, PMRS maintains a pool for certain short-term funds that is used to fund administrative and benefits payments.

#### **EQUITY MARKET**

Domestic equities of all styles and market caps experienced the worst period in decades. The fourth quarter made it clear that we are in a major economic recession. Bankruptcy was the main concern on investors' minds; major institutions and corporations suddenly found themselves in possession of billions of dollars in "toxic" assets and no way to raise enough capital to stay afloat.

Investment bank Bear Stearns' collapse, and later, Lehman Brothers' bankruptcy filing, started a panic that added fuel to the fire. Consumer confidence plummeted, and investors fought to sell off their risky assets. The response was a federal bailout package worth hundreds of billions of dollars. AIG alone received \$85 billion in TARP money to try and stay afloat. Automakers Chrysler, GM, and Ford appeared in Congress asking the government for money, warning they would be forced into bankruptcy without immediate assistance. Public frustration with the economy was evident in the members of Congress' harsh criticism of the CEO's of those companies for flying into Washington on their corporate jets.

For the year, the broad large cap indices, the S&P 500 and the Russell 1000 returned -37.0% and -37.6%, respectively. Value stocks and growth stocks essentially performed the same, with the Russell 1000 Value and Russell 1000 Growth returning -36.8 and -38.4, respectively.

Small cap stocks did slightly better, although the Russell 2000 still dropped 33.8% for the year. There was a considerable difference between value and growth in small cap stocks though. The Russell 2000 Value returned -28.9% for the year, while the Russell 2000 Growth returned -38.6% for the year.

At the end of the year the average yield for the S&P 500 was 2.4%, and the average growth rate was 19.8%. The average P/E was 13.2, which is slightly lower than the historical normal range of 14 to 16. The S&P 500 had 16.6% of its assets in small/mid cap equities (equities with market caps less than \$10 billion), while the rest was in large cap equities.

#### **INTERNATIONAL EQUITIES**

International equities as a whole fared worse than the domestic markets. Both the MSCI EAFE and the MSCI Emerging Markets indices fell more than the S&P 500; the MSCI EAFE was off 43.1% for the year and the MSCI Emerging markets index was off 53.2% for the year.

Among the developed markets, Japan had the best return, returning -30.0% for the year. Ireland did the worst, losing a whopping 75.2% for the year. The Far East did the best among the regions, returning -33.8%. Europe did particularly poorly, losing 48.2%.

For the emerging markets, Israel posted the best return for the year of -23.8%. Of note, Peru, which gained 94.7% in 2007, gave most of that back in 2008, losing 44.5%. Hungary posted the worst return of -68.1% for the year.

On an equal-weighted basis, the MSCI EAFE returned -51.1% for the year. The equal-weighted MSCI Emerging Markets index returned -46.0% for the year.

#### **BOND MARKET**

Since the Lehman Brothers bankruptcy, the indices owned by them have been taken over by Barclays Capital, and are hence known as the Barclays Indices.

The collapse of major financial institutions and dropping consumer confidence resulted in a major freeze in the credit market. Most investors wanted nothing to do with any corporate bonds, and would only put their money into bonds backed by the full faith of the US government. For all practical purposes, corporate bonds were considered to be toxic assets.

With the huge flight to quality by investors, government treasuries soared 10.2% for the year and corporate bonds fell 11.2%, illustrating a 21.4% spread between the two types of bonds. High-yield bonds were avoided by most investors, as illustrated by the Barclays US Corporate High Yield index, which returned -26.2% for the year.

The Fed Funds rate was cut multiple times to just over 0% in an effort to encourage lending between banks. This only had a minimal impact however, since banks were hesitant to lend out any stable capital they had left. Any bonds issued by many banks were reduced to a BBB rating at best, placing them in the high-yield or "junk" bond status.

Treasury yields were down across the board. Short-term notes briefly traded at a negative interest rate, the first time in history for that to occur. At the end of the year, 3-month treasuries had fallen 3.15% from last year to 0.11%. 3-year treasuries fell to 1.00%, and 30-year treasuries fell to 2.69%. The yield curve maintained a normal curve.

The Barclays Aggregate Index returned 5.2% for the year. The average maturity was 5.5 years, much shorter than the 7.1 year maturity at the end of 2007. The interest rate sensitivity (duration) was 3.7 years (adjusted), less than last year's duration of 4.4 years. The average yield for the index was 4.0%, less than last year's 4.9% average yield.

#### **RELATIVE PERFORMANCE**

#### **Total Fund**

For the full year of 2008 our total portfolio returned -24.8%, ranking in the 56th percentile relative to other Trust Funds. Annualized over the last 5 years, we earned 2.4%, ranking in the 35th percentile.

#### **Large Cap Equities**

Our portfolio's large cap equity segment lost 37.2% over the trailing year. This ranked in the 47th percentile of the large cap universe and fell just short of the S&P 500 Index's return of -37.0%. The trailing 5-year return of the large cap segment was -0.7% annualized, ranking in the 30th percentile. The S&P 500 returned -2.2% annualized over the same period.

#### **Small Cap Equities**

Our small cap equities returned -35.4% for the year and ranked in the 46th percentile of the small cap universe. This segment returned -2.5% annualized

over the previous 5 years, ranking in the 77th percentile. The Russell 2000 returned -33.8% and -0.9% respectively for the trailing year and trailing 5 years.

#### **International Equities**

The international equity portion of the portfolio returned -43.5% over the trailing year, ranking in the 60th percentile of the international equity universe. The S&P BMI Ex-US index returned -44.2% over the same period. For the trailing 5 years, the portfolio returned 2.1%, ranking in the 77th percentile, and falling short of the benchmark's 2.6% return.

#### **Fixed Income**

The fixed income portion of the portfolio (bonds) returned 5.4% for the trailing year and 4.7% annualized for the trailing 5-year period, ranking, respectively, in the 18th and 32nd percentiles of the core fixed income universe. The Barclays Aggregate Index returned 5.2% and 4.6% annualized over the same periods.

#### **Real Estate**

Real estate for the portfolio returned -4.6% for the year and 11.7% annualized for the last 5 years. This beat the NCREIF Property Index's 1-year return of -6.5%, and was equal to the Index's 5-year return.

#### **Asset Allocation**

On December 31, 2008, the allocation of assets was as follows:

Large cap equities	30.9%	\$359,885,919
Small cap equities	12.4%	\$144,499,571
International equities	16.7%	\$194,278,919
Total equities	60.0%	\$698,664,409
Fixed income	22.6%	\$263,053,898
Real estate	14.9%	\$173,827,945
Cash and equivalents	2.4%	\$28,080,057
Total portfolio	100.0%	\$1,163,626,309

Report prepared by DAHAB ASSOCIATES, INC.

#### **Basis of Presentation**

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgage-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals every three years. In years for which an appraisal is not performed, real estate investments and investments that do not have an established market value are reported at estimated fair values. Purchases and sales of investments are recorded on a trade-date basis.

Returns for actively-managed funds presented throughout the Investment Section are gross of external manager fees; returns for passively managed funds are net of external manager fees. Overdraft charges, debit interest, registration expenses and stamp duties and taxes spent on foreign securities are deducted and are not included in the calculation of returns. In addition, the securities lending money market returns are net of custodial fees, transfer agent expenses

and professional fees.

On December 31, 2008, the System's investment assets were valued at \$1,163,626,000,<sup>(1)</sup> a decrease in value of \$396,458,000 over the December 31, 2007, valuation of \$1,559,842,000. During the last five years, the System has decreased from \$1,230.9 million to \$1,163.6 million. The following graph shows the System's five-year trend of investment assets at fair value.

The data presented in the Investment Section by the System's independent investment consultant has been prepared by using rates of return using a time-weighted rate of return methodology based upon market values. The Investment Section includes only those investments under management of advisors which are under contract with the System. These investments are valued in a manner consistent with information presented in the Financial Section with the exception of the recognition of pending sales and purchases. The difference noted above represents the difference between the investment balance of \$1,561,067,000 presented in the Financial Section and the balance of \$1,560,084,000 reported in this section.

### Portfolio Distribution - Five-Year Trend

(Fair Value - Amounts in Millions)



<sup>(1)</sup> Amounts in the Investment Section do not include the securities lending collateral pool.

#### **Asset Allocation**

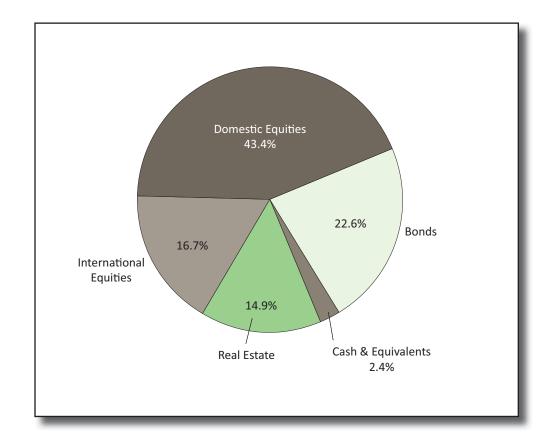
The System's asset allocation as of December 31, 2008, was \$504.4 million committed to domestic equities, \$194.3 million to international equities, \$263 million to bonds, \$173.8 million to real estate, and \$28 million to cash equivalents. The percentage distribution is illustrated below.

The time-weighted rate of return for the System's investments during the fiscal year ended December 31, 2008, was -24.8%, ranking near the median in the 56th percentile of all balanced funds. This performance level was below the median balanced fund's return of -23.8%. The cumulative five-year return for December 2003 through December 2008 of 2.4% annualized ranked in the 35th percentile.

-2.5% annualized and ranked in the 77th percentile. For the year ending December 31, 2008, the international equities lost 43.5% and ranked in the 60th percentile. The S&P/Citigroup BMI lost 44.2 over the same period.

Fixed income returned 5.4% for the year, ranking in the 18th percentile performing above the Barclays Aggregate Index return of 5.2%. For the five-year period, the cumulative bond return of 4.7% annualized ranked in the 32nd percentile. The real estate segment of the portfolio lost 4.6% for the fiscal year. For the cumulative five-year period, the real estate portfolio earned 11.7% annualized.

For the year ended December 31, 2008, large cap equities lost 37.2% and ranked in the 47th percentile, performing just below the S&P 500 Index return of -37.0%. For the last five years, the System's large cap equities return was -0.7% annualized and ranked in the 30th percentile. The Standard and Poor's 500 return was -2.2% for the same time period. The small cap equities lost 35.4% for the year and ranked in the 46th percentile, just below the Russell 2000 return of -33.8. For the five year period, the cumulative return was



# Portfolio Summary As of December 31, 2008

Type of Investment		Par Value	Cost Value	Fair Value	% of Total Fair Value
Corporate and government bonds					
U.S. Government bonds	\$	140,000,000	\$ 140,000,000	\$ 193,600,000	17%
Corporate bonds		50,000,000	50,000,000	69,400,000	6
Total		190,000,000	190,000,000	263,000,000	23
Common stock					
Domestic		625,800,000	625,800,000	503,500,000	43
International		260,000,000	260,000,000	193,700,000	16
Total		885,800,000	885,800,000	697,200,000	59
Other investments					
Real estate equity		160,200,000	160,200,000	173,100,000	15
Cash equivalents		31,700,000	31,700,000	31,700,000	3
Total		191,900,000	191,900,000	204,800,000	18
Grand total	\$1	,267,700,000	\$1,267,700,000	\$1,165,000,000	100%

Portfolio Quality
Two-Year Comparative Analysis
Years Ended December 31, 2008, and 2007

Bond Rating	Fair Value	% of Total Fair Value	% of Total Carrying Value
December 31, 2008			
AAA	\$193,600,000	74%	74%
AA	69,400,000	26	26
Α	0	0	0
Total bonds	263,000,000	100%	100%
December 31, 2007			
AAA	249,600,000	71%	71%
AA	101,000,000	29	29
Α	0	0	0
Total bonds	350,600,000	100%	100%

### Portfolio Rates of Return (1)

Last 5 Years

The following table compares rates of return for the System's total investment portfolio with standard indexes for the last five years. The calculations of yields were prepared using a time weighted rate of return based on the market rate. The System's returns have been competitive with other professionally managed funds.

Rates of Return (Dollar Weighted)	Year Ended 12/31/2008	Period from 1/1/06 to 12/31/08 (Annualized)	Period From 1/1/04 to 12/31/08 (Annualized)
Total	-24.8%	-2.9%	2.4%
(Rank) (2)	(56)	(56)	(35)
Large Cap Equities	-37.2	-8.6	-0.7
(Rank) (3)	(47)	(53)	(30)
Fixed Income	5.4	5.5	4.7
(Rank) (4)	(18)	(30)	(32)
Real Estate	-4.6	7.9	11.7
International	-43.5	-6.9	2.1
(Rank)	(60)	(65)	(77)
Small Cap Equities	-35.4	-10.1	-2.5
(Rank)	(46)	(63)	(77)
Inflation Rate			
Consumer Price Index	0.1	2.2	2.7
Market Indicators			
Standard and Poor's 500	-37.0	-8.4	-2.2
Russell 2000	-33.8	-8.3	-0.9
Barclays Aggregate	5.2	5.5	4.6
S & P/Citigroup BMI Ex-US	-44.2	-7.5	2.6
91-day Treasury Bills	1.4	3.5	3.1
NCREIF Property Index	-6.5	8.1	11.7
Shadow Index (5)	-25.2	-2.9	2.0

<sup>(1)</sup> Rate of return is a mathematical measure of the rate of change in the asset value of a fund. All rates of return are based on the fair value of the assets. Rates of return reflect both realized and unrealized capital gains and losses as well as total earnings from interest and dividends received.

<sup>(2)</sup> Ranked against balanced funds.

<sup>(3)</sup> Ranked against equity oriented funds.

 $<sup>\,^{(4)}\,</sup>$  Ranked against fixed income oriented funds.

<sup>(5)</sup> The shadow index is a customized index created by the System's investment consultant. It is constructed at the asset class level with corresponding benchmark allocations matching the portfolio on a quarterly basis. The following asset classes and corresponding benchmarks have been utilized: Large Cap Equity -- S&P 500; Fixed Income -- Barclays Aggregate Index; Cash & Equivalent -- 90-Day T Bills; Real Estate -- NCREIF Property Index; International Equity -- S&P Citigroup BMI Ex-US Index; Small Cap Equity -- Russell 2000; Emerging Market -- MSCI Emerging Markets.

# Ten Largest Common Stock Holdings As of December 31, 2008 (Fair Value)

Stock	Shares	Fair Value	% of Stock Portfolio
McDonald's Corp.	196,400	\$12,214,116	1.75%
Exxon Mobil Corp.	149,100	11,902,653	1.70%
Wal-Mart Stores Inc.	190,700	10,690,642	1.53%
Amgen	162,400	9,378,600	1.34%
Teva Pharmaceutical - Sp ADR	210,800	8,973,756	1.28%
Johnson & Johnson	136,200	8,148,846	1.17%
Procter & Gamble Co.	120,800	7,467,856	1.07%
Accenture LTD	215,500	7,066,245	1.01%
Waste Management Inc.	192,700	6,386,078	0.91%
Wells Fargo & Co.	203,600	6,002,128	0.86%

 $\ensuremath{\mathsf{A}}$  complete list of portfolio holdings can be obtained from the System.

# Summary of Investment Expenses Comparative Two-Year Schedule

Years ended December 31, 2008, and 2007

Firm Name	2008	2007
Blackrock Financial Management	\$ 0	\$ 111,410
Century Capital Management	325,006	373,784
Chase Investment Counsel Corporation	922,964	983,115
Denver Investment Advisors	394,094	102,914
DePrince, Race & Zollo, Inc.	271,736	340,932
Emerald Advisors	176,282	215,883
Forest Investment Associates	691,849	224,688
GlobeFlex Capital	312,715	276,781
LSV Asset Management	636,048	757,474
Mercator Asset Management	701,431	823,024
Prudential Investments	881,509	771,606
State Street Global Advisors	169,916	214,142
TIAA-CREF Global Real Estate	225,139	0
Waddell & Reed Investment Management	0	97,328
Wentworth, Hauser and Violich	411,656	298,752
Total Investment Management Fees	6,120,345	5,591,833
Custodial Fees - BNY Mellon	8,483	7,962
Total Investment Expenses	\$6,128,828	\$5,599,795

# Summary of Commissions Paid to Brokers Year Ended December 31, 2008

Broker Name	Commissions Paid
Abel Noser Corp, New York	\$63,188
ABG Securities, Oslo	648
ABN AMRO Bk Nv (Secs Trading), Hong Kong	1,249
ABN AMRO Securities LLC, New York	1,159
American Technology Research Inc., Dallas	339
Avondale Partners LLC, Nashville	3,708
Baird, Robert W. & Co. Inc., Milwaukee	8,609
Banc of America Securities LLC, Charlotte	5,235
Banco Santander, New York	1,006
Barkleys Capital LE, Jersey City	491
Bear Sterns Securities Corp., Brooklyn	1,160
Bernstein Sanford C. & Co., New York	3,105
Bloomberg Tradebook LLC, New York	18,602
BMO Capital Markets Corp., New York	949
BNP Paribas Peregrine Sec. LTD, Hong Kong	3,497
BNP Paribas Sec. Svcs., London (PARBGB2L)	955
BNY Convergex / LJR, Houston	160
BNY Convergex, New York	42,338
Boenning & Scattergood, W. Conshohocken	940
Brockhouse and Cooper, Montreal	876
Buckingham Research Grp. Inc., Brooklyn	666
Calyon, Madrid	553
Canaccord Adams Inc., Boston	2,955
Cantor Fitzgerald & Co. Inc., New York	999
Cantor Fitzgerald & Co., New York	491
CAP Institutional Services IncEquities, Dallas	14,180
Caris & Company Inc., Jersey City	4,220
Carnegie ASA, Oslo	784
Carnegie Fondcommon, New York	1,460
CI Nordic Securities AB, Stockholm	285
CIBC World Markets Corp., New York	1,515
Citigroup Global Markets Inc., New York	15,479
Citigroup Global Markets/Salomon, New York	495
Citigroup Global Markets LTD, London	3,301
CJS Securities, Brooklyn	382
Coker Palmer Phillips & Muller, Jersey	92
Collins Steward Inc., New York	8,339
Cowen and Company LLC, New York	7,130
Craig Hallum, Minneapolis	1,654
Credit Agricole Cheuvreux, Courbevoie	19,476
Credit Agricole Indosuez Chx, Milano	1,019

Broker Name	Commissions Paid
Credit Lyonnais Securities, Seoul	1,144
Credit Lyonnais Securities (Asia), Hong Kong	1,662
Credit Lyonnais Securities, Singapore	4,020
Credit Research & Trading LLC, Jersey	528
Credit Suisse (Europe), London	1,753
Credit Suisse, New York (CSFBUS33XXX)	42,618
Dahlman Rose & Co. LLC, Jersey City	4,182
Daiwa Securities America Inc., New York	2,371
Davis Mendel & Regenstein Inc., Atlanta	507
DBS Securities, Singapore	3,425
Deutsche Bank Securities Inc., NY (NWSCUS33)	8,422
Dexia Bank (Formerly Kempen), Amsterdam	8
Dougherty Company, Brooklyn	3,677
Dowling & Partners, Jersey City	3,989
EMP Research Partners LLC, Brooklyn	870
Exane, Paris (EXANFRPP)	588
First Analysis Securities Corp., Chicago	547
Fox Pitt Kelton Inc., New York	5,190
Friedman Billings, Washington DC	7,087
Goldman Sachs & Co., NY	15,725
Goldman Sachs Execution & Clearing, NY	3,056
Green Street Advisors, Jersey City	8,506
Greentree Brokerage Services, Jersey City	1,231
Gunnallen Financial, Jersey City	1,130
Hibernia Southcoast Cap. Inc., Jersey City	1,569
Howard Weil Incorporated, New Orleans	868
Instinet Corp., NY	352
Instinet Europe Limited, London	2,974
Instinet, Paris	622
Intermonte Sec. CIM, Milan	1,363
Investment Technology Groups, New York	10,101
ITG (Europe) LTD, Dublin	84
J P Morgan Securities, Sydney	1,877
J P Morgan Securities LTD, London	5,604
J P Morgan Securities Inc., New York	22,300
Janney Montgomery Scott, Philadelphia	833
Jefferies & Co. Inc., New York	26,469
JMP Securities, San Francisco	5,971
Johnson Rice & Co., New Orleans	890
Jonestrading Instl. Services LLC, Westlake	11,599
JP Morgan Securities (Far East) LTD, Seoul	26
JP Morgan Securities Asia Pacific, Hong Kong	1,796
Keefe Bruyette and Woods, Jersey City	11,299

	Commissions
Broker Name	Paid
Kelly & Christensen Inc., Jersey City	1,368
Kepler Equities, Zurich	31
Kepler Equities, Sucursal En Espana, Madrid	24
Keybanc Capital Markets Inc., New York	2,427
King (CL) & Associates, Albany	1,805
Knight Securities Broadcort, Jersey City	20,350
Ladenburg Thalman & Co., Weehawken	1,547
Lazard Capital Markets LLC, New York	472
Leerink Swann & Co., Jersey City	8,306
Lehman Bros. Inc., New York	10,718
Lehman Bros. Intl., London	260
Liquidnet Inc., Brooklyn	10,305
Longbow Securities LLC, Jersey City	1,579
MacQuarie Equities LTD, Sidney	5,046
MacQuarie Securities (USA) Inc., Jersey City	409
Melvin Securities LLC, Chicago	1,466
Merrill Lynch Intl. (KSI), London	70
Merrill Lynch Intl London Equities	29
Merrill Lynch Pierce Fenner Smith Inc., NY	16,364
Merrill Lynch Pierce Fenner, Wilmington	1,675
Merrill Lynch Professional Clearing, Purchase	1,616
Merriman Curhan Ford, Jersey City	830
Mizuho Securities USA Inc., New York	5,042
MKM Partners, Greenwich	158
Morgan J P Securities Inc., New York	18,736
Morgan Joseph & Co. Inc., Brooklyn	254
Morgan Keegan & Co. Inc., Memphis	4,505
Morgan Stanley & Co. Inc., NY	20,566
Natexis Bleichroeder Inc., New York	410
National Financial Services Corp., New York	2,112
Needham & Co., New York	4,403
Nomura Securities Intl. Inc., New York	16,382
O'Connor & Co. LLC Retail, Chicago	674
O'Neil William & Co. Inc./BCC, Los Angeles	4,414
Oppenheimer & Co. Inc., New York	9,915
Opstock Securities, Helsinki (OPSEFIH1)	15
Pacific American Securities LLC, San Diego	108
Pacific Crest Securities, Portland	3,667
Pipeline Trading Systems LLC, New York	229
Piper Jaffray & Co., Minneapolis	15,914
Pritchard Capital Partners, Jersey City	1,008
Punk, Ziegel & Knoell, New York	1,012
Raymond James & Assoc. Inc., St. Petersburg	11,493

	Commissions
Broker Name	Paid
RBC Capital Markets Corp., Minneapolis	8,815
RBC Dominion Securities Inc., Toronto (DOMA)	944
Ridge Clearing & Outsourcing, New York	403
Rodman & Renshaw/Equities, New York	172
Roth Capital Partners LLC, Irvine	406
Sandler O'Neill & Partners, New York	118
Sanford C. Bernstein & Co. Inc., London	4,090
SBK-Brooks Investment Corp., Cleveland	232
Scotia Capital Markets, Toronto	6,148
Scotia McLeod (USA) Inc., New York	368
Scott Stringfellow Inc., Richmond	2,349
SG Securities (London) LTD, London	5,238
Sidoti & Co. LLC, New York	5,416
SIS Segaintersettle AG, Zurich	1,399
Skandinaviska Enskilda Banken, London	1,416
Soleil Securities Corp., New Jersey	1,028
Stanford Group Company, New Jersey	889
Stephens Inc., Little Rock	652
Sterne Agee & Leach Inc.	1,213
Stifel Nicholaus	9,234
Suntrust Capital Markets Inc., Atlanta	8,700
Svenska Handelsbanken, New York	767
Thinkequity Partners LLC, Minneapolis	554
Thomas Weisel Partners, San Francisco	5,636
Toronto Dominion Securities, Toronto	1,584
UBS Equities, London	2,780
UBS Securities LLC, Stamford	24,980
UBS Warburg Asia LTD, Hong Kong	203
Union Bank Switzerland Securities, London	7,777
Wachovia Capital Markets LLC, Charlotte	2,895
Wedbush Morgan Securities Inc., Los Angeles	4,949
Weeden & Co., New York	243,167
Westminster Securities Corp., New York	182
William Blair & Co., Chicago	8,736
Total Brokerage Commissions Paid	\$1,043,671

INVESTMENTS 45

#### **Investment Guidelines**

#### INTRODUCTION

The following represents highlights from the Board's investment guidelines adopted on May 15, 2008. These guidelines, which set forth the Board's expectations, restrictions, and policy decisions, were developed to assist the System's staff and consultants in the daily management of the System's assets.

#### **BACKGROUND**

The System is currently experiencing a positive cash flow, however, it is expected that this will gradually decline in the future. The System currently meets routine benefit payments from incoming revenue as opposed to any depletion of invested assets.

#### **PHILOSOPHY**

The Board considers itself a conservative fiduciary, placing the greatest emphasis on quality of investments and consistency in return. Despite this conservative posture, the Board still believes that the five-year rate of return on investments should exceed the recognized market indices for the various asset vehicles. After consideration of the System's 2007 asset allocation study as well as current market trends, the Board established its allocation goals as follows:

Equities (large capitalized firms)	25%
Equities (small capitalized firms)	15%
Equities (non-US domiciled firms)	15%
Equities (Emerging Markets)	10%
Fixed income	20%
Real estate	15%

#### **OBJECTIVE**

The Board's investment objective is to benefit PMRS member municipalities by adding value to their assets. Recognizing that inflation can erode value, the Board's goal is to have the fund earn at least 2% more annually than the average annual inflation rate over a long period of time. While this is the System-wide goal, individual investment managers' performance

measures rely on other characteristics that are specifically spelled out in the individual contractual service agreement.

#### PORTFOLIO CONSTRUCTION

#### **Short-Term Considerations**

It is the Board's desire to remain as fully invested as possible. Therefore, any manager in a cash or cash equivalent position must either invest in vehicles authorized by the System or utilize the System's depository relationship with the State Treasurer who, in turn, invests all cash on a daily basis. No management fee will be paid by the System for any portion of a manager's average assets in excess of 5% remaining in cash equivalents at Treasury after the end of any given quarter.

#### **Fixed Income Considerations**

The Board seeks to bring income and stability to the overall portfolio through fixed income vehicles. The bond portfolio must be invested in quality vehicles, and it is expected to be diversified from a geographic and industrial standpoint. No single holding of an investment manager other than a U.S. Government bond is to account for more than 5% of the fair value of an investment manager's bond portfolio. The System shall not hold as assets more than 10% of any one bond issue nor more than 5% of the bonds of any one issuing agent. Corporate bonds of any given industry are not to account for more than 25% of the fair value of the bond portfolio.

#### **Equity Investment Policy**

The System's equity portfolio reflects the Board's desire to include growth through market appreciation. The Board requires an equity portfolio with diversification, quality issuance, and underlying value. No single equity holding may account for more than 7.5% of the fair value of the System's equity portfolio. Generally, no single sector should account for more than 20% of the value of an individual manager's portfolio. No more than 1% of the capitalization of any company is to be held by the System. The cumulative holdings

of a manager for all of that manager's clients shall account for no more than 5% of the outstanding voting common stock of a corporation.

#### **Real Estate Policy**

The Board believes that diversification in investment vehicles should enhance the potential return on investments without significantly altering the overall risk of the portfolio. Investment decisions regarding the real estate portfolio shall be guided by the objectives to preserve capital, maximize cash distributions and income, achieve a total return competitive with the other asset classes, and maintain a broad diversification of assets and managers. Real estate vehicles may be both direct equity participation and participation in commingled funds that involve equity participation with consideration given to types of properties and geographic location. The investment process and specific limitations shall be detailed in each real estate manager's contract.

#### **Prohibited Transactions**

The Board prohibits (1) purchasing of commodities, mineral rights, and warrants except those previously authorized; (2) short selling and the purchasing of securities on margin; and (3) selling or buying options or future contracts on either fixed income or equity instruments. Leveraged derivatives of any nature or the use of derivatives to create leverage are strictly prohibited.

#### **Execution and Operation**

The System utilizes The Bank of New York Mellon as a master custodian and the Pennsylvania State Treasury as the depository.

Investment managers are directed to execute orders on the best net execution/price basis. Transactional costs and the rate of turnover are monitored. Active equity managers are expected to execute trades on

the auction market at a rate close to the executiononly cost (currently averaging three cents per share or less).

The investment managers may enter into agreements with certain brokerage houses in order to participate in a recapture program whereby a designated percentage of the System's trades handled by these brokerage firms will be returned as cash to the System and be treated as new income for the benefit of the membership. It is expected that under such an arrangement, the average execution cost of all trades will approximate the execution-only price.

The Board assumes full responsibility for exercising the voting privilege contained in proxy solicitations and has adopted specific guidelines for staff guidance. These guidelines as adopted and hereafter amended are an integral part of the System's investment guidelines.

#### **Communications**

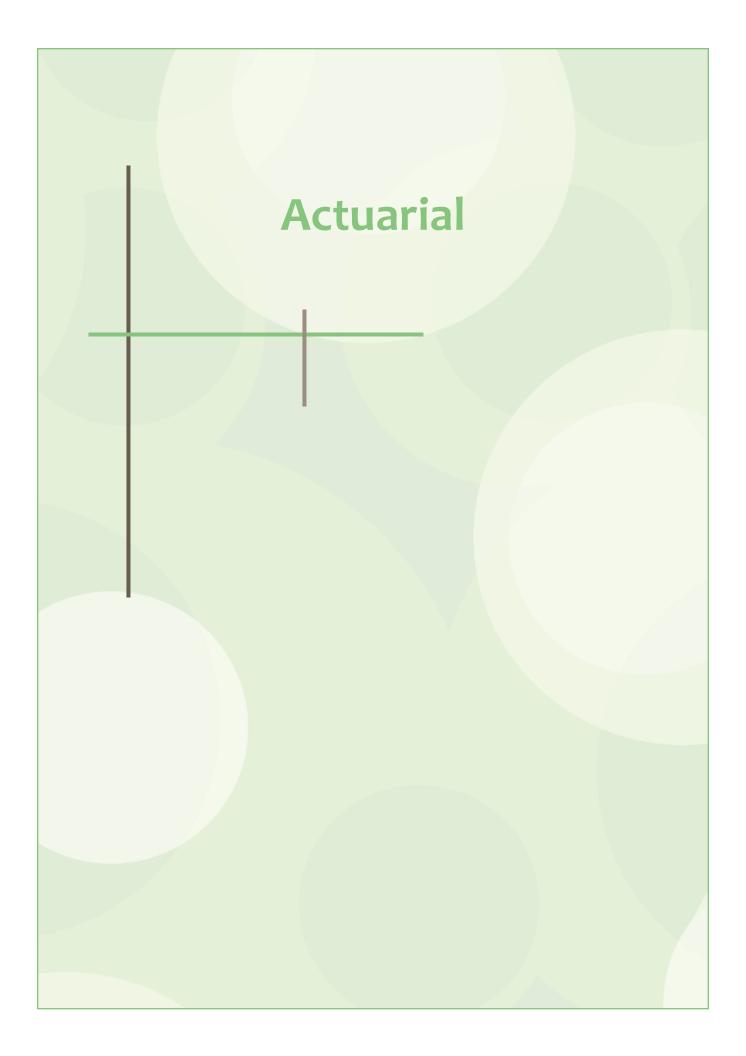
The Board expects an open and constant line of communication between the System's staff and investment managers. Reports required of investment managers to the Board and staff include a timely confirmation of all transactions, a monthly summary of transactions, a quarterly statement of asset values at cost and fair value, any explanation of contemplated major shifts in investment strategy or manager style before implementation, and an explanation of major changes in organization or the personnel associated with the System's account. Active equity managers are required to report on a quarterly basis the average commission price per share traded during the quarter. In addition to the written reports, the investment managers are obligated to make periodic personal appearances before the Board as specifically spelled out in the investment manager's contract.

Investment managers' fees are paid in hard dollars. The cost for each investment manager is based on the fair value of the firm's assets in the System's portfolio at the end of each quarter.

Investment Guidelines (continued)

### Monitoring

The System monitors the performance of its investment managers through direct involvement of the Board, the System's staff, and any consultant hired for this purpose by the Board.



### **Actuary's Certification Letter**



Classic Values, Innovative Advice

May 15, 2009

Pennsylvania Municipal Retirement Board of the Pennsylvania Municipal Retirement System c/o James B. Allen, Secretary P.O. Box 1165 Harrisburg, PA 17108-1165

#### Dear Members of the Board:

At your request, we have conducted the annual actuarial valuation of the Pennsylvania Municipal Retirement System (the System) as of January 1, 2008. This report includes the valuation of the four county plans and reflects a roll forward of all other plans administered by the System. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on System assets, as well as analyses which combine asset and liability performance and projections. As a single retirement system made up of plans for participating municipalities and counties in which assets and liabilities are separately accounted for, this report reflects aggregate valuation results for the System which is considered a multiple employer plan. The report provides statistics on employer contribution levels for the defined benefit portion of the municipal plans participating in the System as of the valuation date as well as required disclosures under the Governmental Accounting Standards Board Statement #25 for the entire System.

Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief. All municipalities that were required to file an Act 205 form as of January 1, 2007, had their liabilities actuarially adjusted and included in this report to maintain a true valuation of the System from year to year. All county plans reported to the State for the Act 293 2008 System Year are the actual values. Additionally, we rely on future System experience conforming to the underlying assumptions. To the extent that actual System experience deviates from the underlying assumptions, the results would vary accordingly.

We hereby certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that Kenneth A. Kent, as a Member of the American Academy of Actuaries, meets the Qualification Standards to render the opinions contained in this report.

Sincerely, Cheiron

Kenneth A. Kent, FSA, FCA

Consulting Actuary

Anthony J. Bucci, Jr. Actuarial Analyst



#### PENNSYLVANIA MUNICIPAL RETIREMENT SYSTEM

#### **FOREWORD**

Cheiron has performed the actuarial valuation of the Pennsylvania Municipal Retirement System (System) as of January 1, 2008. The purpose of this report is to:

- 1) Measure and disclose, as of the valuation date, the financial condition of the System;
- 2) Indicate trends in the financial progress of the System;
- 3) Determine the average contribution rate to be paid by the System's individual municipalities; and
- 4) Provide specific information and documentation required by the Governmental Accounting Standards Board (GASB)

An actuarial valuation establishes and analyzes System assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the System's investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the System in recent years.

Section II contains details on various asset measures, together with pertinent performance measurements.

Section III shows similar information on System liabilities, measured for actuarial, accounting, and government reporting purposes.

Section IV shows the distribution of the municipalities' contribution rates by component.

Section V includes the required disclosures under GASB Statement Number 25.

The appendices to this report contain a summary of the System's membership at the valuation date, and the actuarial methods and assumptions used in the valuations.

As this System is a multiple employer plan in which each of the participating municipalities are entitled to define and submit to the Board for amendment the benefit provisions for their respective employees, the actual plan provisions are not included in this report. We based our results on the plan provisions defined and submitted to the State under the 2007 Act 205 filings and 2008 Act 293 filings in preparing this valuation. Because the System is bound by Act 205 to complete a biennial valuation for each employer, we have developed liabilities for 2008 for all county plans required to submit a valuation as of January 1, 2008, using the 2007 information. For the municipalities valued as of January 1, 2007, we used the 2007 results and current active counts to estimate the liabilities for these plans to provide an overall measure of the funded status of the System. This method is referred to as a "roll forward" and is used throughout this report in all 2008 calculations for the municipalities to reduce the appearance of volatility in results.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the Office of System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.



#### Actuary's Certification Letter (continued)

The actuarial assumptions reflect our understanding of the likely future experience of the System, and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the System could vary from our results.

Finally, in preparing this report, we have conformed to generally accepted actuarial principles and practices which are consistent with the Code of Professional Conduct, and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board.



**Solvency Test**Aggregate Accrued Liabilities for

Valuation Date January 1,	Active Member Contributions (1) (1)	Retirees & Beneficiaries (2)	Active Member Employer Financed Contributions (3)	Actuarial Value of Reported Assets		of Accrued L d by Reporte (2)	
2008	\$321,567,969	\$461,965,617	\$593,002,445	\$1,458,148,442	100%	100%	114%
2007	293,593,948	471,770,821	516,657,229	1,336,009,295	100%	100%	110%
2005	231,122,200	395,061,900	528,674,100	1,219,130,000	100%	100%	112%
2003	213,174,400	329,766,100	412,318,900	1,084,828,900	100%	100%	131%
2001	201,814,300	263,171,300	347,659,500	976,868,000	100%	100%	147%
1999	170,495,100	224,089,800	297,499,500	773,062,000	100%	100%	127%

#### **Funded Status of Actuarial Liabilities**

GASB Statement No. 25 Disclosure

Valuation Date January 1,	Actuarial Value of Assets (A)	Actuarial Liability (AL) Entry Age (B)	Unfunded AL (Surplus) (B-A)	Funded Ratio (A/B)
2008	1,458,148,442	1,376,536,031	(81,612,411)	105.9%
2007	1,336,009,295	1,282,021,998	(53,987,297)	104.2%
2006	60,678,307	55,251,080	(5,427,227)	109.8%
2005	1,219,130,000	1,154,858,200	(64,271,800)	105.6%
2004	54,024,249	45,580,670	(8,443,579)	118.5%
2003	1,084,828,900	955,259,400	(129,569,500)	113.6%

The actuarial assumptions as of January 1, 2008, are shown in the assumptions and methods section. The above information was derived from the following membership data, as provided by the System, regarding:

- ♦ 4 defined benefit plans required to re-determine contribution levels as of January 1, 2008;
- ♦ 679 defined benefit county and non-county plans and 177 defined contribution only plans as of January 1, 2007;
- ♦ 4 defined benefit plans required to re-determine contribution levels as of January 1, 2006;
- ♦ 678 defined benefit county and non-county plans and 169 defined contribution only plans as of January 1, 2005;
- ◆ 4 defined benefit plans required to re-determine contribution levels as of January 1, 2004;
- ♦ 656 defined benefit county and non-county plans and 163 defined contribution only plans as of January 1, 2003;

<sup>&</sup>lt;sup>1</sup> This includes the sum of the active member employee contribution balances, the member separate annuity account balances, the municipal for separate annuity account balances, and the excess interest allocations.



### **Note to Required Supplementary Information**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date

Actuarial cost method

Amortization method

Actuarial assumptions:

Investment rate of return (1)
Projected salary increases (1)
(1) Includes inflation at Cost-of-living adjustments

January 1, 2008

Entry age

Level dollar for Plan Bases and open for Aggregate Gain/Loss

6.0%
3.0% - 7.8%
3.0%
ad hoc

The rate of employer contributions to the System is composed of the normal cost, amortization of the unfunded actuarial liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost which, along with member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability. The allowance for administrative expenses is based upon the System's actual administrative expenses.

#### Schedule of Retirees and Beneficiaries

Added to and Removed from Rolls in Last Six Years

Valuation Date January 1,	Added to Roll	Average Annual Annuities Added <sup>2</sup>	Deleted from Roll	Average Annual Annuities Removed <sup>2</sup>	Number on Roll	Annual Annuities	Percentage Increase in Annuities	Average Annual Annuities	Percentage Increase in Average Annual Annuities
2008	236	12,780	97	8,921	3,598	42,895,559	7.6%	11,922	3.4%
2007	252	12,828	170	N/A	3,459	39,870,509	5.1	11,527	2.6
2006	268	N/A	83	N/A	3,377	37,943,181	9.4	11,236	3.4
2005	251	N/A	116	N/A	3,192	34,691,928	8.4	10,868	3.8
2004	214	N/A	84	N/A	3,057	32,010,035	7.4	10,471	2.8
2003	199	N/A	71	N/A	2,927	29,816,676	8.2	10,187	3.4

<sup>(2)</sup> The System contracted a new actuary and implemented a computer software package. Historical information is not available.



<sup>(1)</sup> The actuarial assumptions used have been recommended by the actuary and adopted by the System's Board based on the most recent review of the System's experience completed in 2003.

# Schedule of Total Membership Six Year Trend

Valuation Date January 1,	Active Members Defined Benefit Plans	Active Members Defined Contribution Plans	Retirees	Beneficiaries	Deferred Pensions	Inactive Members	Total
2008	8,383	950	3,173	425	744	7	13,682
2007	8,314	918	2,965	494	723	33	13,447
2006	8,374	896	2,941	436	675	66	13,388
2005	8,341	867	2,768	424	602	165	13,167
2004	8,491	902	2,657	416	546	230	13,242
2003	8,142	797	2,534	393	573	177	12,616

#### **Funded Status of Actuarial Liabilities**

Schedule of Total Membership Over Last Four Years

		As of Ja	nuary 1 <sup>(1)</sup>	
	2008	2007	2006	2005
a. Retirees currently receiving benefits	3,173	2,965	218	2,768
b. Beneficiaries currently receiving benefits	425	494	8	424
c. Terminated vested employees entitled to future benefits from DB plans	570	561	53	464
d. Terminated non-vested employees entitled to contribution refunds from DB plans	7	33	7	165
e. Active employees in defined benefit plans	8,383	8,314	717	8,341
i. Aggregate salary (2)	\$364,865,185	\$358,690,830	\$23,905,899	\$319,004,918
ii. Vested	4,913	4,430	358	4,603
iii. Non-vested	3,470	3,884	359	3,738
f. Participants in defined contribution-only plans	1,124	1,080		1,005
i. Aggregate salary (3)	\$31,107,136	\$28,213,485		\$26,807,519
ii. Active	950	918		867
iii. Inactive	174	162		138



<sup>(1)</sup> Years 2005, 2007, and 2008 include defined benefit non-county plans, defined benefit county plans, and defined contribution only plans. 2006 includes defined benefit county plans only.

 $<sup>^{(2)}</sup>$  Projected salary for actives under the latest retirement age for year following valuation date.

<sup>(3)</sup> Actual salary for preceding valuation date.

#### **Schedule of Active Member Valuation Data**

Last Six Years

			De	efined Benefit Pla	ns			
Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
2008	8,383	0.8	692	1.3	364,865,000	1.7	43,524	0.9
2007	8,314	(0.7)	683	0.0	358,691,000	7.6	43,143	8.4
2006	8,374	0.4	683	0.9	333,300,000	4.5	39,807	4.1
2005	8,341	(1.8)	678	2.4	319,005,000	0.7	38,245	2.5
2004	8,491	4.3	662	1.0	316,703,000	7.9	37,299	3.5
2003	8,142	3.9	656	1.9	293,400,000	7.9	36,034	3.8
			Defir	ned Contribution I	Plans			
Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
2008	950	3.5	183	3.4	31,107,000	10.3	32,744	6.5
2007	918	2.5	177	2.9	28,213,000	1.0	30,734	(1.6)
2006	896	3.3	172	1.8	27,970,000	4.3	31,218	1.0
2005	867	(3.8)	169	(3.4)	26,808,000	6.0	30,920	10.3
2004	902	13.2	175	7.4	25,291,000	17.9	28,038	4.1
2003	797	7.8	163	5.8	21,459,000	12.2	26,925	4.0

### **Actuarial Assumptions and Methods**

## **Actuarial Assumptions**

The current PMRS actuarial assumptions used in this study are as follows.

- **A.** Healthy Life Mortality rates: Sample rates are:
  - (a) Type of Death:
    - (i) 15% of mortality is assumed to be service related for municipal plans, and
    - (ii) 50% of mortalities are assumed to be service related for uniform plans.
- **B.** Disabled Life Mortality Rates: Mortality under healthy life table for a life 10 years older.

Healthy Life Mortality Rates						
	Retirees January (1983 GA females setb	1, 2005 M Males;	New Re on or January (1994)	after 1, 2005		
Age	Male Female		Male	Female		
50	0.39%	0.19%	0.26%	0.14%		
55	0.61	0.35	0.44	0.23		
60	0.92	0.57	0.80	0.44		
65	1.56	0.84	1.45	0.86		
70	2.75	1.39	2.37	1.37		
75	4.46	2.48	3.72	2.27		
80	7.41	4.04	6.20	3.94		
85	11.48	6.71	9.72	6.77		



#### C. Termination Rates Before Retirement:

For all plans with 25 or more active members, the bers, no terminations were assumed.

Termination Rates Before Retirement					
	Current Valuation Rate (1)				
	Uniformed	Mun	icipal		
Years of Service	M&F	Male	Female		
Less than 1	13%	13%	16%		
1 but less than 2	10	12	15		
2 but less than 3	7	10	13		
3 but less than 4	7	9	11		
4 but less than 5	6	6	9		
5 but less than 6	5	6	8		
6 but less than 7	4	6	7		
7 but less than 8	3	5	7		
8 but less than 9	3	4	6		
9 but less than 10	3	3	5		
10 or more	3	2	4		

#### D. Disability Incidence Rates:

Municipal - 40% of 1964 OASDI (Social Security) Experience for Males. Sample rates are:

Age	Valuation Rate (%)
25	0.051%
35	0.088
45	0.216
55	0.605
65	1.393

termination rates indicated below were used; for municipalities with between 6 and 24 members, a percentage of the indicated rates where such percentage equals 100 percent less 5 percent x (25 – number of members); for municipalities with 5 or fewer memType of disability:

- (i) 15% of disablements are assumed to be service related for municipal plans
- (ii) 50% of disablements are assumed to be service related for uniform plans.

#### E. Workers compensation:

Service related disability benefits payable from municipal plans are offset by 25% of final average salary.

**F. Salary Scale:** Three year select rates include 3.0% inflation and age-related scale for merit/ seniority based on sample rates as shown at right plus 2% during the select period only then reverting to inflation and merit/ seniority thereafter. Final actual salary plans assume an additional 6% at retirement.

Sample Salary Rates

25     7.8%       30     5.9       35     5.1       40     4.5       45     4.2       50     4.1       55     3.9       60     3.7       65     3.0	Age	(including inflation)
35 5.1 40 4.5 45 4.2 50 4.1 55 3.9 60 3.7	25	7.8%
40 4.5 45 4.2 50 4.1 55 3.9 60 3.7	30	5.9
45 4.2 50 4.1 55 3.9 60 3.7	35	5.1
50 4.1 55 3.9 60 3.7	40	4.5
55 3.9 60 3.7	45	4.2
60 3.7	50	4.1
	55	3.9
65 3.0	60	3.7
	65	3.0

Sample rates are:

### **G. Retirement age:** The age

at which unreduced benefits are available. No early retirement is assumed. Specific assumptions regarding retirement age are:

- a) Uniformed Members:
  - (i) Members first eligible to retire at age 57 or younger will defer their retirement four years,
  - (ii) Members first eligible to retire at ages 58, 59, 60 or 61 will retire at age 62, and

**Retirement Assumptions** 

Age	Current Rate of Normal Retirement (3)
Under 46	5%
46 - 54	15
55 - 59	10
60 - 61	10
62	30
63 - 64	20
65	35
66 - 74	15
75	100

Uniformed plans - 60% of 1964 OASDI (Social Security) Experience for Males. Sample rates are:

Municipal Rates

Age

25

35

45

55

65

Current

Valuation Rate (%)

0.034%

0.059

0.144

0.404

0 928

<sup>(3)</sup> Rates indicated are adjusted by adding 5% (and 10% for ages 60-62 under current rate assumptions) for the year in which the member is first eligible for normal retirement.



<sup>(1)</sup> No termination rates are applied once the employee becomes eligible for voluntary early or normal retirement.

<sup>(2)</sup> Add 2% for each of the first 3 years of service

(iii) Members first eligible to retire at ages 62 or older will retire when first eligible.

#### b) Municipal Members:

Members are assumed to retire over a range of ages as shown at right:

Inactive vested members are assumed to retire when first eligible for unreduced benefits.

**H.** Marital Status and Spouse's Age (1): 85 percent of members will be married at time of retirement and females are four years younger than their spouses.

#### I. Social Security Projections (1):

- a) The Social Security Taxable Wage Base will increase by 3.5% compounded annually;
- b) The Consumer Price Index will increase by 3.0% compounded annually;
- c) The Average Total Wages of All Workers will increase by 3.5% compounded annually.

#### J. Post-Retirement Cost of Living Increases (1):

3.0% per year, subject to plan limitations.

#### K. Net Investment Return:

6.0% compounded annually (net of investment and certain administration expenses) for funding purposes.

#### L. Administrative Expenses:

The reserve for non-investment related expenses of the System, net the \$20 per participant annual assessment is based on expected expenses for the current year. The amount allocated for 2008 is \$3,375,000 compared to \$3,050,000 for 2007.

### **Actuarial Methods**

Contribution requirements are individually determined for each participating municipality, on an actuarial basis as described on the next page, at least biannually. The frequency of actuarial valuation is determined by applicable Commonwealth statute (Act 205 of 1984 and Act 293 of 1972). The following actuarial methods were adopted effective January 1, 1985, unless indicated otherwise.

#### **ACTUARIAL VALUE OF ASSETS:**

Sum of all audited reserve accounts as of the valuation date, including Member, Municipal, Retired, and Disability Reserves, and a one-year administration expense reserve, plus the portion of any additional investment income to be distributed as "excess interest." The actuarial value can never be less than 90 percent of fair market value.

Each year, municipalities receive an excess interest allocation derived as a portion of new surplus created during the prior year. "Surplus" refers to the excess of fair market value over the actuarial value of assets. Once the preliminary actuarial asset value has been determined, a formula is used to allocate the new surplus. Generally, depending on the relative size of surplus to fair market value, between 10 percent and 90 percent of the new surplus will become excess interest.

#### **ACTUARIAL COST METHOD**

Entry Age Normal Actuarial Cost Method.

Entry age is defined as attained age less credited service. The normal cost rate is derived as a level percent of future compensation of current employees, on an individual basis. This rate is applied to the projected payroll and projected employee contributions are deducted. Actuarial gains (or losses), including



<sup>(1)</sup> If applicable.

the effect of contributions greater or lesser than the previously determined actuarial level, are reflected by decreases (or increases) in the unfunded actuarial liability. Under Act 205 of 1984, the unfunded actuarial liability is amortized as a level dollar amount over the lesser of:

- a) i. 30 years, with respect to the initial liability as of 1/1/85 (or first valuation);
  - ii. 20 years, with respect to changes due to plan provisions and actuarial assumptions;
  - iii. 10 years, with respect to changes in benefits for currently retired members;
  - iv. 15 years, with respect to actuarial gains and losses; or
- b) the average assumed working lifetime of active employees as of the date the liability was established (1).

With the two exceptions which follow, the funding method is applied individually with respect to each municipality:

- 1) Retired and disabled members are paid monthly benefits from the System's Retired Reserve account, which at the time of retirement receives a transfer from the municipal and member accounts in an amount actuarially determined to be sufficient to pay all future benefits for the member (and, if applicable, a surviving beneficiary). Thus, post-retirement experience is pooled with the System. (However, this procedure does not apply to the legislated ad-hoc adjustments effective January 1, 1989.)
- 2) A disabled member's pension is met in part from the amount that can be provided by the value of that portion of the member's accrued benefit attributable to municipal contributions, with the balance of the pension being provided by the appropriate transfer from the Disability Reserve Account. The amount of annual

transfer from the accumulated municipal contributions to the Disability Reserve Account is determined on the one year term cost basis, i.e. the expected cost of disabilities in the coming year.

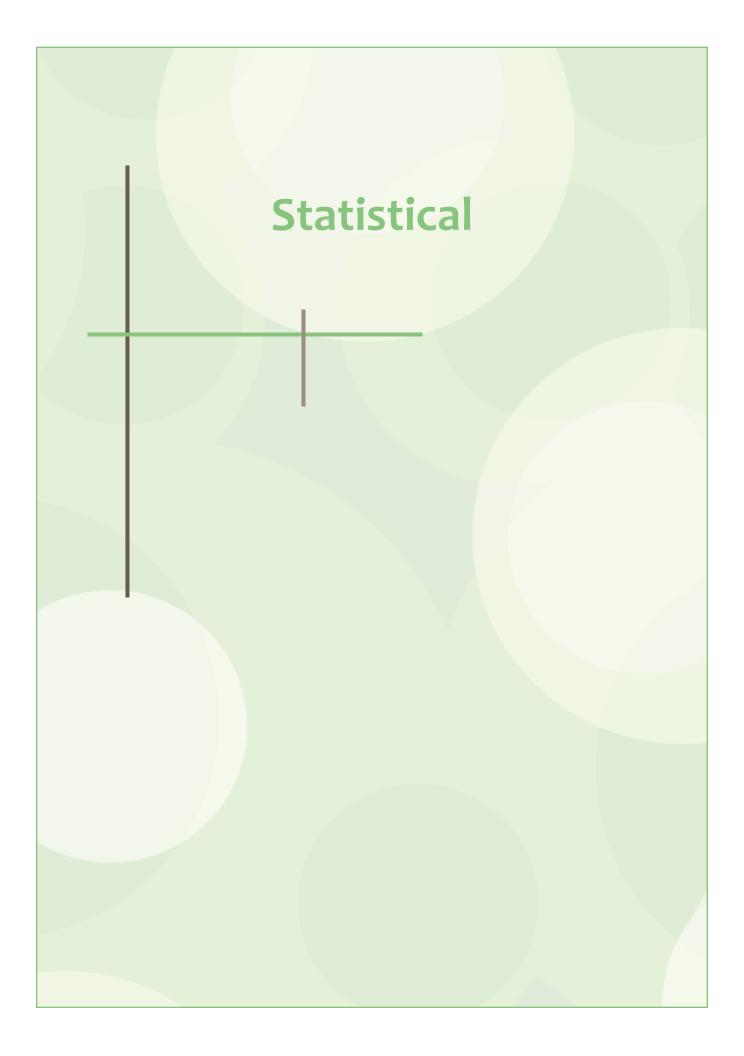
<sup>(1)</sup> If there are no active employees, the unfunded liability is amortized one year after the liability was established.



### **Notes to Actuarial Section**

#### **ASSUMPTION ANALYSIS**

The System does not conduct an extensive experience study by individual plan because the magnitude of any change in plans of average size becomes misleading and irrelevant. An actuarial experience study covering the period 1/1/1998 to 1/1/2003 was used by the Board as the basis to adopt (with the actuary's recommendation) several changes in assumptions that were implemented with the January 1, 2005, actuarial valuation.



#### Introduction

The objectives of the statistical section are to provide additional historical perspective, context, and relevant details to assist readers in using information in the financial statements, notes to the financial statements, and required supplementary information in order to understand and assess the System's overall financial condition. In support of these objectives, the System has implemented GASB Statement No. 44, Economic Condition Reporting: The Statistical Section. This statement establishes standardized reporting requirements relative to the supplementary information provided in this section.

The schedules beginning on page 63 compare the revenues versus expenses of the System and include total investments of the System for the past eight years. The schedules also show operating information. The operating information is intended to provide contextual information about the System's operations to assist in assessing the System's economic condition. These schedules provide detailed information about the trends of key sources of additions and deductions to the System's assets, which assist in providing a context framing how the System's financial position has changed over time.

The schedules beginning on page 66 provide information relative to membership. The schedules and graphs reflect changes in active and retired members of the System. The information is intended to provide contextual information about the System's membership and framework for the ratio of funding versus obligations. The schedules beginning on page 68 provide information relative to pension payments and pensions awarded. The information is intended to provide contextual information about payment trends of the System.

All non-accounting data is derived from the System's internal sources.

Data presented in the statistical section is not available prior to 2001.

#### Number of Members Per Plan

(Plans with 100 or more members)

Plan	Members
Allentown City	808
Bethlehem City	630
Adams County	567
Harrisburg City	512
Jefferson County	259
Harrisburg Fire	194
Monroeville Municipality	193
Adams County - Green Acres	190
Easton City	166
Bucks County Water & Sewer Authority	135
Pottstown Borough	137
Tredyffrin Township	113
Upper Moreland Township	113
Whitehall Township	109

# Revenues by Source and Expenses by Type Last Eight Years

	Revenues by Source									
Fiscal Year	Member Contributions	Municipal Contributions (1)	Municipal Assessments <sup>(2)</sup>	Investment Income	Total Revenue					
2008	\$17,870,426	\$31,532,859	\$290,320	\$(387,077,602)	\$(337,383,997)					
2007	17,491,672	29,059,248	282,628	114,838,806	161,672,354					
2006	16,316,197	21,148,089	284,820	161,140,029	198,889,135					
2005	16,046,984	19,890,494	277,640	100,261,568	136,476,686					
2004	15,821,360	17,041,418	263,401	140,070,192	173,196,371					
2003	14,760,323	14,696,210	270,140	208,542,292	238,268,965					
2002	13,639,485	28,836,362	260,020	(82,539,549)	(39,803,682)					
2001	13,007,863	21,010,322	248,960	(40,673,724)	(6,406,579)					

Expenses by Type									
	Benefit I	Expenses	Administrative	Total					
Fiscal Year	Annuity	Termination	Expenses	Expenses					
2008	\$46,173,544	\$7,597,681	\$2, 986,656	\$56,757,881					
2007	42,898,882	7,006,182	2,862,482	52,767,546					
2006	44,136,795	18,354,567	2,920,868	65,412,230					
2005	38,206,205	10,331,707	3,108,239	51,646,151					
2004	34,730,243	10,318,197	3,127,096	48,175,536					
2003	32,212,191	7,578,995	2,610,839	42,402,025					
2002	29,575,725	8,502,709	2,406,732	40,485,166					
2001	28,941,799	11,686,001	2,555,114	43,182,914					

### **Changes in Net Assets**

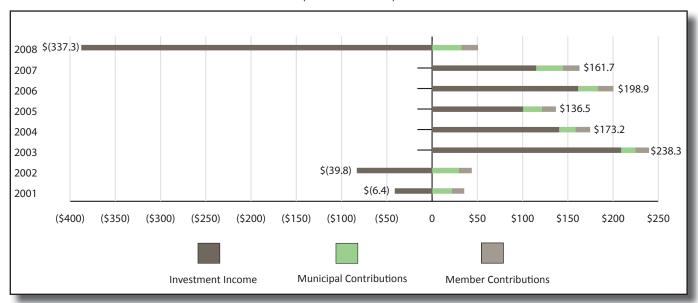
Fiscal Year	Contributions	Investment Income	Benefit Expenses	Administrative Expenses	Change in Net Assets
2008	\$49,693,605	\$(387,077,602)	\$53,771,225	\$2,986,656	\$(394,141,878)
2007	46,833,548	114,838,806	49,905,064	2,862,482	108,904,808
2006	37,749,106	161,140,029	62,491,362	2,920,868	133,476,905
2005	36,215,118	100,261,568	48,537,912	3,108,239	84,830,535
2004	33,126,179	140,070,192	45,048,440	3,127,096	125,020,835
2003	29,726,673	208,542,292	39,791,186	2,610,839	195,866,940
2002	42,735,867	(82,539,549)	38,078,434	2,406,732	(80,288,848)
2001	34,267,145	(40,673,724)	40,627,800	2,555,114	(49,589,493)

 $<sup>^{(1)}</sup>$  Contributions were made in accordance with actuarially determined contribution requirements.

 $<sup>\</sup>ensuremath{^{\text{(2)}}}$  Municipal assessments are receipts but not assets of the plans.

### Revenues by Source - Eight-Year Trend

(Amounts in Millions)

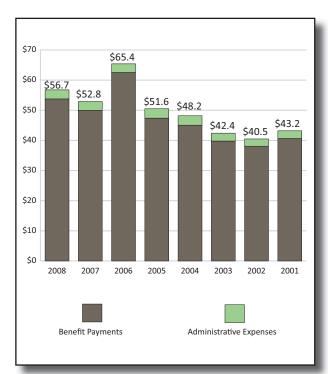


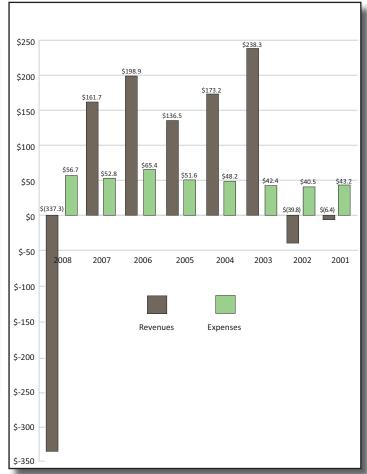
### Revenues vs. Expenses

Eight-Year Trend
(Amounts in Millions)

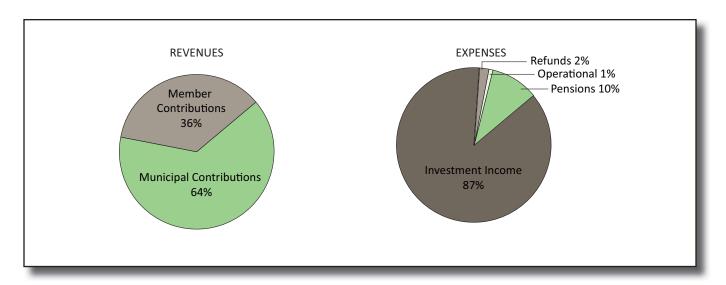
### **Expenses by Type**

Eight-Year Trend (Amounts in Millions)

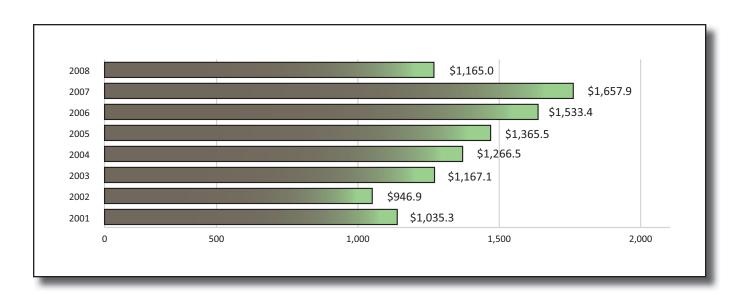




# Revenues and Expenses (Amounts in Millions)

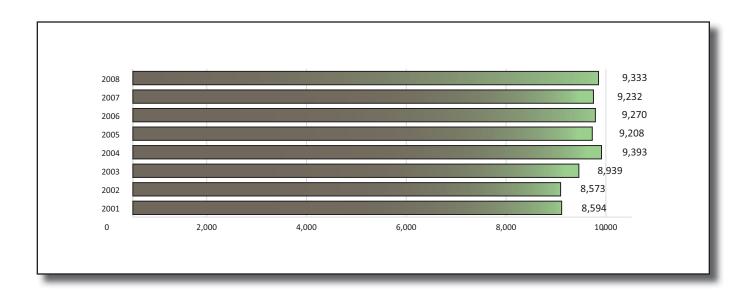


# Total Investments - Eight-Year Trend (Fair Value - Amounts in Millions)

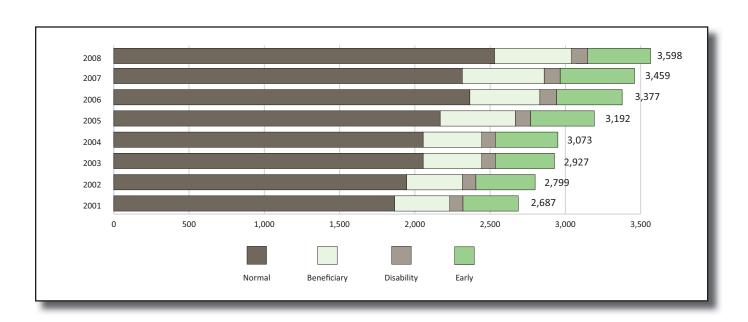


## Part II - Membership

# Active Members - Eight-Year Trend Valuation Date 1/1



# Retired Members - Eight-Year Trend Valuation Date 1/1



# **Distribution of Active Members** by Age and Service as of January 1, 2008

					Counts by A	ge/Service					
Age	1 year or less	1 to 2	2 to 3	3 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 & up	Total
Under 20	9	3	0	0	0	0	0	0	0	0	12
20 -24	108	57	36	20	6	0	0	0	0	0	227
25 - 29	107	104	80	115	130	2	0	0	0	0	538
30 - 34	84	75	73	109	263	60	1	0	0	0	665
35 - 39	86	75	70	131	327	189	99	6	0	0	983
40 - 44	102	90	76	137	321	229	232	87	11	0	1,285
45 - 49	76	88	66	155	331	249	281	189	165	20	1,620
50 - 54	61	93	55	135	301	248	258	177	209	163	1,700
55 - 59	41	48	49	91	199	176	229	144	122	222	1,321
60 - 64	17	24	15	50	133	101	141	77	62	79	699
65 & up	12	8	0	25	53	41	52	21	27	44	283
Total	703	665	520	968	2,064	1,295	1,293	701	596	528	9,333

# **Distribution of Active Members** by Age and Service as of January 1, 2008

				Av	erage Salary b	y Age/Service					
Age	1 year or less	1 to 2	2 to 3	3 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 & up	Total
Under 20	\$8,153	\$24,982	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,360
20 -24	\$18,259	\$34,232	\$34,386	\$38,157	\$31,832	\$0	\$0	\$0	\$0	\$0	\$26,939
25 - 29	\$17,318	\$33,708	\$37,120	\$40,587	\$42,529	\$47,000	\$0	\$0	\$0	\$0	\$34,607
30 - 34	\$19,106	\$34,971	\$39,197	\$40,371	\$44,763	\$43,898	\$53,552	\$0	\$0	\$0	\$39,022
35 - 39	\$20,739	\$34,317	\$40,533	\$39,519	\$43,964	\$47,636	\$48,735	\$49,145	\$0	\$0	\$41,578
40 - 44	\$19,227	\$34,761	\$34,658	\$37,915	\$41,004	\$45,782	\$50,038	\$50,199	\$42,973	\$0	\$41,256
45 - 49	\$18,445	\$33,330	\$37,419	\$38,319	\$40,336	\$42,107	\$46,656	\$50,801	\$47,937	\$49,752	\$42,096
50 - 54	\$22,554	\$33,686	\$34,290	\$33,183	\$39,354	\$40,683	\$44,211	\$47,425	\$49,771	\$49,423	\$41,805
55 - 59	\$23,829	\$35,373	\$35,527	\$37,152	\$36,138	\$41,507	\$43,241	\$47,006	\$48,984	\$54,222	\$43,132
60 - 64	\$20,796	\$30,413	\$34,087	\$31,772	\$37,262	\$36,809	\$39,767	\$43,542	\$48,278	\$49,631	\$39,672
65 & up	\$19,378	\$26,554	\$0	\$24,298	\$28,648	\$36,304	\$32,608	\$43,383	\$39,779	\$49,310	\$35,016
Total	\$19,330	\$33,929	\$36,823	\$37,395	\$40,646	\$42,703	\$45,018	\$48,061	\$48,369	\$51,475	\$40,565

Pensions in Payment Status on January 1, 2008 by Type and by Monthly Amount

				Type of Pension		
Monthly amount	Total	Normal	Involuntary early	Voluntary early	Service disability	Non-service disability
Total	3,598	2,963	181	351	31	72
Under \$100	169	146	11	10	1	1
\$100 - \$199	225	174	30	19	2	0
200 - 299	260	205	29	26	0	0
300 - 399	261	212	24	24	0	1
400 - 499	212	168	13	25	2	4
500 - 599	257	211	14	24	1	7
600 - 699	213	174	11	21	0	7
700 - 799	208	159	10	30	0	9
800 - 899	197	154	7	22	2	12
900 - 999	193	152	10	22	2	7
1,000 - 1,199	325	261	6	41	5	12
1,200 - 1,399	219	180	6	25	4	4
1,400 - 1,599	193	166	5	15	5	2
1,600 - 1,799	141	121	2	15	3	0
1,800 - 1,999	121	105	2	10	0	4
2,000 - 2,199	97	89	0	7	1	0
2,200 - 2,399	57	54	0	3	0	0
2,400 - 2,599	64	58	0	4	1	1
2,600 - 2,799	49	46	1	1	1	0
2,800 - 2,999	29	27	0	1	0	1
3,000 - 3,499	54	49	0	4	1	0
3,500 - 3,999	33	31	0	2	0	0
4,000 and over	21	21	0	0	0	0

#### Pensions Awarded Each of the Last Ten Years

by Type and Amount

	Type of Pension									
	То	tal	Nor	mal	Volunta	ry early	Involunt	ary early	Disal	oility
Valuation Date 1/1	Count	AMA (1)	Sum	AMA	Sum	AMA	Sum	AMA	Sum <sup>(2)</sup>	AMA
2008	236	1,065	227	1,056	0	0	6	1,259	3(0)	1,350
2007	252	1,069	192	1,082	32	1,196	19	572	9(2)	1,373
2006	264	1,270	217	1,290	11	639	23	1,257	13(4)	1,493
2005	247	1,126	189	1,185	13	653	35	994	10(1)	1,100
2004	214	1,199	171	1,226	8	609	26	1,206	9(4)	1,199
2003	199	1,087	170	1,121	5	670	17	974	7(2)	837
2002	246	1,277	206	1,346	6	945	30	957	4(0)	655
2001	185	954	147	1,028	8	423	25	736	5(1)	702
2000	179	869	152	912	3	345	22	647	2(0)	850
1999	152	939	122	1,006	6	347	13	785	11(2)	698

### Schedule of Total Membership - Eight Year Trend

Valuation Date 1/1	Active Members Defined Benefit Plans	Active Members Defined Contribution Plans	Retirees	Beneficiaries	Deferred Pensions <sup>(3)</sup>	Inactive Members <sup>(4)</sup>	Total
2008	8,383	950	3,173	425	744	7	13,682
2007	8,314	918	2,965	494	723	33	13,447
2006	8,374	896	2,941	436	675	66	13,388
2005	8,341	867	2,768	424	602	165	13,167
2004	8,491	902	2,657	416	546	230	13,242
2003	8,142	797	2,534	393	573	177	12,616
2002	7,834	739	2,428	371	453	182	12,007
2001	7,911	683	2,324	363	433	158	11,872

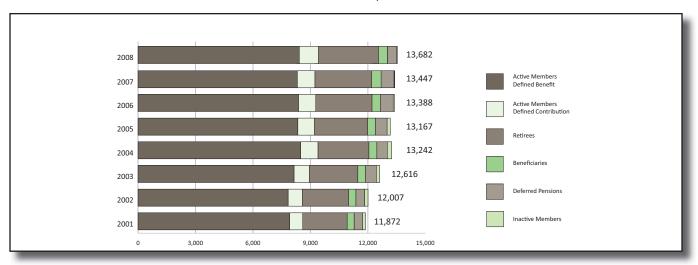
<sup>(1)</sup> Average Monthly Amount

 $<sup>^{\</sup>mbox{\scriptsize (2)}}$  Number of service-related disability pensions are shown in parentheses.

 $<sup>\</sup>ensuremath{^{\mathrm{(3)}}}$  Inactive participants with rights to deferred pension (vested)

<sup>(4)</sup> Inactive participants with rights to return of contributions (non-vested)

## Total Membership - Eight-Year Trend Valuation Date 1/1



#### **Schedule of Active Member Valuation Data**

Last Eight Years

	Defined Benefit Plans							
Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
2008	8,383	0.8	692	1.3	364,865,000	1.7	43,524	0.9
2007	8,314	(0.7)	683	0.0	358,691,000	7.6	43,143	8.4
2006	8,374	0.4	683	0.9	333,300,000	4.5	39,807	4.1
2005	8,341	(1.8)	678	2.4	319,005,000	0.7	38,245	2.5
2004	8,491	4.3	662	1.0	316,703,000	7.9	37,299	3.5
2003	8,142	3.9	656	1.9	293,400,000	7.9	36,034	3.8
2002	7,834	(1.0)	644	2.2	272,000,000	2.9	34,720	3.9
2001	7,911	0.5	630	3.1	264,346,000	4.4	33,415	3.9
	Defined Contribution Plans							
Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
2008	950	3.5	183	3.4	31,107,000	10.3	32,744	6.5
2007	918	2.5	177	2.9	28,213,000	1.0	30,734	(1.6)
2006	896	3.3	172	1.8	27,970,000	4.3	31,218	1.0
2005	867	(3.8)	169	(3.4)	26,808,000	6.0	30,920	10.3
2004	902	13.2	175	7.4	25,291,000	17.9	28,038	4.1
2003	797	7.8	163	5.8	21,459,000	12.2	26,925	4.0
2002	739	8.2	154	10.8	19,128,300	7.7	25,884	(0.5)
2001	683	9.1	139	12.1	17,767,000	11.2	26,014	1.9

## Schedule of Average New Monthly Benefit Payments from Defined Benefit Plans (1) Four Years Ended January 1, 2008

	Years Credited Service						
Retirement Effective Dates	< 5	5-10	10-15	15-20	20-25	25-30	30+
Period 1/2/07 to 1/1/08							
Average monthly benefit	\$179	374	685	999	1,338	1,739	2,530
Average final average salary	\$34,031	32,597	35,004	35,358	35,290	41,102	51,424
Number of retired members	11	34	45	43	33	32	38
Period 1/2/06 to 1/1/07	40-0						
Average monthly benefit	\$376	458	707	928	1,331	1,864	2,443
Average final average salary	\$38,487	38,257	31,807	43,304	40,141	45,548	50,429
Number of retired members	11	21	35	45	39	36	30
Period 1/2/05 to 1/1/06							
Average monthly benefit	\$686	386	661	1,052	1,330	1,912	2,292
Average final average salary	\$38,368	27,580	33,166	37,380	37,914	46,427	45,614
Number of retired members	11	27	37	44	36	44	60
Period 1/2/04 to 1/1/05							
Average monthly benefit	\$90	401	640	926	1,364	1,740	2,050
Average final average salary	\$27,628	35,862	27,960	36,563	37,558	41,400	40,845
Number of retired members	8	16	30	51	42	42	45

<sup>(1)</sup> Includes Normal Retirement, Early Retirement and Disability Benefits for new retirees in the years listed (excluding new retirees in Defined Contribution plans).

# Schedule of Participating Pension Plans as of January 1, 2008

COUNTIES	Bowmanstown Borough	Etna Borough
Adams County	Brackenridge Borough	Everett Borough
Adams County-Green Acres	Bridgeville Borough	Falls Creek Borough
Forest County	Brockway Borough	Ferndale Borough
Jefferson County	Brookville Borough	Forest City Borough
	California Borough	Fountain Hill Borough
CITIES	Cambridge Springs Borough	Franklin Borough
Allentown	Camp Hill Borough	Franklintown Borough
Bethlehem	Carnegie Borough	Freeburg Borough
Clairton	Carroll Valley Borough	Freedom Borough
Connellsville	Carrolltown Borough	Freeland Borough
DuBois	Castle Shannon Borough	Greenville Borough
Easton	Centerville Borough	Hollidaysburg Borough
Farrell	Central City Borough	Homer City Borough
Greensburg	Charleroi Borough	Hughestown Borough
Harrisburg	Claysville Borough	Hummelstown Borough
Hermitage	Clymer Borough	Huntingdon Borough
Jeannette	Coaldale Borough	Hyndman Borough
Latrobe	Cochranton Borough	Jim Thorpe Borough
Lebanon	Collegeville Borough	Johnsonburg Borough
Lower Burrell	Collingdale Borough	Kenhorst Borough
Nanticoke	Conneautville Borough	Kennett Square Borough
New Kensington	Conshohocken Borough	Kittanning Borough
Sharon	Conway Borough	Knox Borough
Sunbury	Coopersburg Borough	Kulpmont Borough
Uniontown	Cressona Borough	Kutztown Borough
	Dalton Borough	Lehighton Borough
BOROUGHS	Deemston Borough	Lewistown Borough
Adamstown Borough	Delmont Borough	Lykens Borough
Ashland Borough	Derry Borough	Marcus Hook Borough
Atglen Borough	Doylestown Borough	Martinsburg Borough
Avonmore Borough	Dravosburg Borough	Marysville Borough
Bally Borough	Dublin Borough	Matamoras Borough
Bangor Borough	Duboistown Borough	Mayfield Borough
Bedford Borough	Duncannon Borough	Mercer Borough
Bellefonte Borough	East Berlin Borough	Meyersdale Borough
Bellwood Borough	East Greenville Borough	Middleburg Borough
Bentleyville Borough	East Rochester Borough	Millersburg Borough
Berlin Borough	East Stroudsburg Borough	Millerstown Borough
Big Beaver Borough	East Washington Borough	Minersville Borough
Biglerville Borough	Emlenton Borough	Monaca Borough
Bloomfield Borough	Emporium Borough	Monroeville Municipality

<sup>(1)</sup> County names are in parentheses.

**72** STATISTICAL

**TOWNSHIPS OF THE SECOND CLASS** 

Mont Alto Borough Slippery Rock Borough Salisbury Township Montrose Borough Smithton Borough Springdale Township Moosic Borough Souderton Borough Swatara Township

Morrisville Borough South Waverly Borough Upper Moreland Township

Mount Jewett Borough Southmont Borough Vanport Township

Mount Pleasant Borough Springdale Borough West Pottsgrove Township Whitehall Township Mount Union Borough Stewartstown Borough Mt. Gretna Borough Summit Hill Borough Wilkins Township

Nanty Glo Borough Tarentum Borough

Narberth Borough Telford Borough Allegheny Township (Venango County) Nesquehoning Borough Topton Borough

Allegheny Township (Westmoreland County) New Eagle Borough Trainer Borough

Turbotville Borough Antrim Township New Stanton Borough Athens Township **Newport Borough** Turtle Creek Borough Newtown Borough Verona Borough **Bald Eagle Township Bedminster Township** Norristown Borough Versailles Borough

Waterford Borough **Bell Township** North East Borough **Bethel Township** Northumberland Borough Waynesburg Borough Black Creek Township Orwigsburg Borough West Grove Borough

West Middlesex Borough Blair Township Palmerton Borough **Bloomfield Township** Pen Argyl Borough West Newton Borough Wheatland Borough **Blooming Grove Township** Pennsburg Borough Boggs Township (Centre County) Perkasie Borough White Haven Borough

Boggs Township (Clearfield County) Pine Grove Borough Williamstown Borough **Brecknock Township** Portage Borough Wilmerding Borough Pottstown Borough Wilson Borough **Briar Creek Township Brighton Township** Prospect Park Borough Windsor Borough

**Broad Top Township** Ridley Park Borough Yoe Borough

**Brothersvalley Township** Roaring Spring Borough York Springs Borough **Brown Township** Rochester Borough Youngwood Borough

**Buckingham Township** Rouseville Borough

**TOWNSHIPS OF THE FIRST CLASS** Royersford Borough **Buffalo Township** Caln Township **Burnside Township** Rural Valley Borough

Collier Township **Burrell Township** Salisbury Borough **Crescent Township** Sandy Lake Borough Caernarvon Township East Deer Township Cambria Township Saxton Borough Schuylkill Haven Borough Elizabeth Township (Allegheny County) Cambridge Township

Harrison Township Canton Township Selinsgrove Borough Sellersville Borough Hopewell Township (Beaver County) Cass Township

North Huntingdon Township Center Township (Greene County) Shamokin Dam Borough North Versailles Township Sharpsburg Borough Center Township (Indiana County) Ridley Township Center Township (Snyder County) Sharpsville Borough Rochester Township Centre Township (Berks County) Shenandoah Borough

Centre Township (Perry County)	Farmington Township	Lancaster Township (Butler County)
Cherrytree Township	Forks Township	Lancaster Township (Lancaster County)
Clarion Township	Forward Township	Latimore Township
Clearfield Township	Foster Township	LeBoeuf Township
Columbus Township	Franklin Township (Beaver County)	Lehman Township
Concord Township	Franklin Township (Butler County)	Liberty Township
Conemaugh Township	Franklin Township (Carbon County)	Limestone Township (Lycoming County)
Conewago Township	Franklin Township (Greene County)	Limestone Township (Union County)
Corydon Township	Freedom Township	Lincoln Township
Covington Township	Freehold Township	Liverpool Township
Cranberry Township	Frenchcreek Township	London Britain Township
Cross Creek Township	Girard Township	London Grove Township
Darlington Township	Glade Township	Lower Mahanoy Township
Delaware Township	Greene Township	Lower Towamensing Township
Derry Township (Dauphin County)	Greenfield Township (Blair County)	Lower Yoder Township
Derry Township (Dauphin County) - DC Plan	Greenfield Township (Erie County)	Loyalhanna Township
Derry Township (Mifflin County)	Greenfield Township (Lackawanna County)	Mahoning Township
Derry Township (Westmoreland County)	Hamilton Township	Manchester Township
Dickinson Township	Hamiltonban Township	Mead Township
Dingman Township	Hanover Township (Lehigh County)	Middle Smithfield Township
Donegal Township (Butler County)	Haycock Township	Middlesex Township
Donegal Township (Washington County)	Hemlock Township	Milford Township (Bucks County)
Donegal Township (Westmoreland County)	Henderson Township	Milford Township (Pike County)
Dorrance Township	Hilltown Township	Millcreek Township
Douglass Township (Montgomery County)	Hopewell Township (Cumberland County)	Monongahela Township
East Allen Township	Hopewell Township (Washington County)	Monroe Township
East Carroll Township	Hopewell Township (York County)	Morris Township (Greene County)
East Coventry Township	Horsham Township	Morris Township (Washington County)
East Fallowfield Township	Howe Township	Mount Joy Township
East Finley Township	Hunlock Township	Mount Pleasant Township
East Hanover Township	Huntington Township	Muncy Creek Township
East Huntingdon Township	Huston Township	New Garden Township
East Manchester Township	Jackson Township (Greene County)	New Sewickley Township
East Marlborough Township	Jackson Township (Lebanon County)	Nockamixon Township
East Rockhill Township	Jackson Township (Luzerne County)	North Buffalo Township
Eldred Township (Jefferson County)	Jackson Township (Snyder County)	North Coventry Township
Eldred Township (Monroe County)	Jackson Township (Susquehanna County)	North Franklin Township
Eldred Township (Warren County)	Jefferson Township (Washington County)	North Strabane Township
Elizabeth Township (Lancaster County)	Jenks Township	Nottingham Township
Elk Creek Township	Jenner Township	Oakland Township
Elk Township	Jones Township	Oil Creek Township (Venango County)
Fairfield Township	Keating Township	Oil Creek Township (Crawford County)
Fairview Township	Kennett Township	Old Lycoming Township

Oliver Township South Middleton Township Wiconisco Township Paradise Township South Pymatuning Township Williams Township Pennsbury Township South Strabane Township Windsor Township Perry Township Southampton Township Woodward Township Pike Township Southwest Township Wright Township Pine Creek Township Spring Creek Township Wrightstown Township Pine Grove Township (Schuylkill County) Springfield Township Zerbe Township Pine Grove Township (Warren County) Sugar Grove Township **POLICE** Pittsfield Township Sullivan Township Abington Township Police Pleasant Township Summit Township Ashley Borough Police Plumcreek Township Tinicum Township **Bally Borough Police** Plumstead Township **Towamensing Township** Barrett Township Police Pocopson Township Tredyffrin Township Bedminster Township Police Point Township Tunkhannock Township Bellwood Borough Police Portage Township Union Township (Berks County) Bentleyville Borough Police Preston Township Union Township (Lebanon County) Berks-Lehigh Regional Police **Price Township** Union Township (Snyder County) Big Beaver Borough Police Providence Township **Unity Township** Biglerville Borough Police Wallace Township Pulaski Township Birmingham Township Police **Pymatuning Township** Warrington Township Blair Township Police Raccoon Township Warsaw Township Brecknock Township Police Rice Township Warwick Township Briar Creek Township Police Richhill Township Washington Township (Berks County) **Buckingham Township Police Richland Township** Washington Township (Dauphin County) Caernarvon Township Police Ridgway Township Washington Township (Erie County) California Borough Police Rome Township Washington Township (Fayette County) Cambria Township Police Rose Township Washington Township (Greene County) Cambridge Springs Borough Police **Rutland Township** Washington Township (Northampton County) Camp Hill Borough Police Washington Township (Schuylkill County) Rye Township Carroll Township Police Washington Township (Wyoming County) Scott Township Carroll Valley Borough Police Sewickley Township West Bradford Township Central City Borough Police West Brunswick Township Shade Township Centre Township Police (Berks County) Sheffield Township West Caln Township Clairton Police Shippensburg Township West Carroll Township Clymer Borough Police Shrewsbury Township West Fallowfield Township Cochranton Borough Police Slippery Rock Township West Lampeter Township Colebrookdale Township Police Solebury Township West Pennsboro Township Conneaut Lake Regional Police South Abington Township West Rockhill Township Coopersburg Borough Police South Beaver Township West Salem Township

West Wheatfield Township

Westtown Township

Wetmore Township

Whiteley Township

Covington Township Police

Crescent Township Police

Danville Borough Police

**Delmont Borough Police** 

**Darlington Township Police** 

South Bend Township

South Franklin Township

South Huntingdon Township

South Manheim Township

Donegal Township Police (Washington County)

Douglass Township Police (Berks County)

Douglass Township Police (Montgomery

County)

Dravosburg Borough Police

**Dublin Borough Police** 

**Duboistown Borough Police** 

**Dunbar Borough Police** 

**Duncannon Borough Police** 

East Bangor Borough Police

East Berlin Borough Police

East Coventry Township Police

East Deer Township Police

East Fallowfield Township Police

East Marlborough Township Police

East Pennsboro Twp Police

East Washington Borough Police

Elizabeth Township Police (Allegheny County)

Ell-Co Regional Police

**Emlenton Borough Police** 

**Emporium Borough Police** 

**Everett Borough Police** 

Factoryville Borough Police

Fairview Township Police

Falls Creek Borough Police

Forest City Borough Police

Forward Township Police

Franklin Borough Police

Franklin Township Police (Beaver County)

Freedom Borough Police (Beaver County)

Freedom Township Police

Gilpin Township Police

**Greenfield Township Police** 

Greenville Borough Police

Harveys Lake Borough Police

Heidelberg Township Police

Hellam Township Police

Hemlock Township Police

Hilltown Township Police

Hummelstown Borough Police

Hyndman Borough Police

Independence Township Police

Jackson Township Police (Luzerne County)

Johnsonburg Borough Police

Knox Borough Police

Lancaster Township Police (Butler County)

Larksville Borough Police

Liberty Borough Police

Linesville Borough Police

Locust Township Police

Lower Windsor Township Police

Lower Yoder Township Police

Lykens Borough Police

Mahoning Township Police

Manor Borough Police

Martinsburg Borough Police

Marysville Borough Police

Mayfield Borough Police

Mead Township Police

Mercer Borough Police

Middleburg Borough Police

Middlesex Township Police

Millcreek Township Police

Millersburg Borough Police

Millville Borough Police

Montour Township Police

Moore Township Police

Moosic Borough Police

Morrisville Borough Police

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Moscow Borough Police

Mount Jewett Borough Police

Mount Union Borough Police

Mt. Pleasant Borough Police

New Garden Township Police

New Wilmington Borough Police

New Willington Borough Folic

Newport Borough Police

Newtown Borough Police

Nockamixon Township Police

North Coventry Township Police

North Huntingdon Township Police

North Middleton Township Police

North Sewickley Township Police

Northeastern Regional Police Department

Northumberland Borough Police

Northwest Lawrence County Regional Police

Commission

Ohio Township Police

Old Lycoming Township Police

Orangeville Area Police Board

Orwigsburg Borough Police

Paxtang Borough Police

Penbrook Borough Police

Pennridge Regional Police Dept

Perkasie Borough Police

Pine Grove Borough Police

Point Township Police

**Pymatuning Township Police** 

Red Lion Police

Richland Township Police

Roaring Spring Borough Police

Rochester Township Police

Rye Township Police

Sandy Lake Borough Police

Saxton Borough Police

Schuylkill Township Police

Schwenksville Borough Police

Scott Township Police

Scottdale Borough Police

Selinsgrove Borough Police

Shade Township Police

Shamokin Dam Borough Police

Shamokin Bam Boroagin

Sheffield Township Police

Shippingport Borough Police

Shiremanstown Borough Police

Sinking Spring Borough Police

Souderton Borough Police

South Beaver Township Police

South Centre Township Police

South Pymatuning Township Police

South Waverly Borough Police

South Williamsport Borough Police

Southern Police Commission
Springdale Township Police

Stewartstown Borough Police

Summit Hill Borough Police

Telford Borough Police

Tinicum Township Police

Tulpehocken Township Police

Tunkhannock Township Police

Vanport Township Police

Versailles Borough Police

Washington Township Police (Fayette County)

West Caln Township Police

West Fallowfield Township Police

West Grove Borough Police

West Lampeter Township Police

West Middlesex Borough Police

West Pikeland Township Police

West Pottsgrove Township Police

West Sadsbury Township Police

West Vincent Township Police

Westfield Borough Police
Wheatland Borough Police

White Haven Borough Police

Wiconisco Township Police

Williamstown Borough Police

Windsor Borough Police

Windsor Township Police

Wrightstown Township Police

Youngwood Borough Police

**FIREFIGHTERS** 

Clairton City

Greenville Borough

Harrisburg City

Larksville Borough

Manchester Twp

South Strabane Township
Upper Moreland Township

Wilson Borough

#### **AUTHORITIES & OTHER UNITS**

Allegheny Valley Joint Sewer Authority

Ambridge Borough Municipal Authority

**Armstrong Conservation District** 

Avonmore Borough Municipal Authority

B.A.R.T.A.

Bedford Borough Water Authority

**Bedford Municipal Authority** 

Bedminster Municipal Authority

Belle Vernon Municipal Authority

Berks-Lehigh Regional Police NU

Bethlehem Authority

Bethlehem City Redevelopment Authority

**Bloomfield Township Sewer Authority** 

**Bradford City Water Authority** 

**Bradford Regional Airport Authority** 

**Brighton Township Municipal Authority** 

**Brighton Township Sewer Authority** 

**Bristol Township Authority** 

Brockway Area Sewage Authority

**Brockway Borough Municipal Authority** 

**Brodhead Creek Regional Authority** 

**Brookville Municipal Authority** 

**Bucks County Redevelopment Authority** 

**Bucks County Water & Sewer Authority** 

**Burrell Township Sewage Authority** 

**Butler Area Public Library** 

Cambria County Conservation & Recreation Authority

Cambria Township Sewer Authority

Cambria Township Water Authority

Carbon County Conservation District

Carmichaels-Cumberland Joint Sewer

Carroll Township Authority

Catawissa Borough Municipal Water Authority

Centerville Borough Sanitary Authority

Central Carbon Municipal Authority

Central Indiana County Joint Sanitary Authority

Centre County Library & Historical Museum

Clarion County Housing Authority

Coaldale-Lansford-Summit Hill Sewer Authority

Columbia County Conservation District

**Concord Township Sewer Authority** 

Connellsville Municipal Authority

Connellsville Redevelopment Authority

Conshohocken Borough Authority

Coplay-Whitehall Sewer Authority

Cressona Borough Authority

Creswell Heights Joint Authority

Cumberland-Franklin Joint Municipal Authority

Curwensville Municipal Authority

Delaware Valley Municipal Management Association

Derry Township Municipal Authority

Derry Township Sanitary Sewer Authority

DuBois City Redevelopment Authority

East Norriton-Plymouth-Whitpain Joint Sewer Authority

Eastern Snyder County Regional Authority
Economy Borough Municipal Authority
Elizabeth Borough Municipal Authority
Elizabeth Township Sanitary Authority

Emlenton Area Municipal Authority
Erie County Housing Authority
Everett Area Municipal Authority
Fawn Township Sewage Authority
Fawn-Frazer Joint Water Authority
Fayette County Conservation District

Forward Township Municipal Authority

Franklin City Housing Authority

Franklin Township Municipal Sanitary Authority

Franklin Township Sewer Authority Frazer Transportation Authority

Fredericksburg Sewer & Water Authority
Freeland Borough Municipal Authority
Greater Lebanon Refuse Authority
Greenville Municipal Authority
Guilford Township Authority

Harrison Township Water Authority

Hawley Area Authority
Hazleton Transit Authority
Hellertown Borough Authority

**Guilford Water Authority** 

Hilltown Township Water & Sewer Authority

Horsham Township Sewer Authority

Hughesville-Wolf Township Joint Municipal Authority

Indiana County Conservation District
Indiana County Solid Waste Authority
Jackson Township Water Authority
Jeannette Municipal Authority
Jefferson Conservation District
Johnsonburg Municipal Authority
Juniata County Conservation District

Kiskiminetas Township Municipal Authority

Kittanning Suburban Joint Water Authority Kulpmont-Marion Heights JMA Lancaster City Parking Authority

Lansford - Coaldale Joint Water Authority

Lebanon City Authority
Lebanon Community Library

Leetsdale Borough Municipal Authority

Lehigh County Authority
Lehighton Water Authority

Lower Bucks County Joint Municipal Authority

Lower Bucks County Joint Municipal Authority Supervisors

Lower Indiana County Municipal Authority

Lower Providence Township Sewer Authority

Luzerne Conservation District
Lycoming Sanitary Committee
Mahanoy Township Authority
Mahoning Township Authority
Maidencreek Township Authority

Manor Township Joint Municipal Authority

Mary Meuser Memorial Library

Matamoras Municipal Authority

McKean County Solid Waste Authority

Wickean County Sona Waste Nathonty

Mercer County Regional Planning Commission

Mid Mon Valley Water Authority

Middlesex Township Municipal Authority Middletown Township Sewer Authority Mifflin County Regional Police NU Mifflintown Municipal Authority

Milford Water Authority

Millcreek - Richland Joint Authority

Millersburg Area Authority

Mon Valley Sewage Authority

Monroe County Control Center

Montgomery County Sewer Authority

Montour County Conservation District

Montrose Municipal Authority

Moon Township Municipal Authority

Morrisville Borough Municipal Authority

Mount Joy Township Authority

Mount Pocono Municipal Authority

Mt. Jewett Borough Authority

Mt. Lebanon Parking Authority

Myerstown Community Library Association

Myerstown Water Authority
Nanty Glo Sanitary Sewer Authority

Nanty Glo Water Authority

**Nesquehoning Borough Authority** 

New Kensington Municipal Sanitary Authority
New Kensington Redevelopment Authority

Newport Borough Water Authority

Norristown Municipal Waste Authority

North & South Shenango Joint Municipal Authority

North Coventry Municipal Authority

North Huntingdon Township Municipal Authority

North Middleton Authority

North Strabane Township Municipal Authority

Northampton Borough Municipal Authority

Northampton Borough Municipal Authority - DC Plan

Northeastern Regional Police NU Northern Lancaster County Authority Northern York County Regional Police NU

Northwest Regional Lancaster County Police NU

Oil City Housing Authority

Northumberland Sewer Authority

PA League Of Cities & Municipalities Parks Township Municipal Authority Penn Township Sewage Authority Pennridge Regional Police NU

Pennridge Waste Treatment Authority

Perkasie Borough Authority
Peters Creek Sanitary Authority
Peters Township Municipal Authority
Portage Area Sewer Authority
Portage Borough Municipal Auth

Possum Valley Municipal Authority Reynoldsville Water Authority Riverview Sanitary Authority

Robesonia-Wernersville Municipal Authority Robinson Township Municipal Authority Rochester Area Joint Sewer Authority Rostraver Township Sewer Authority

Seward/St. Clair Township Sanitary Authority Shamokin City Redevelopment Authority Shannock Valley General Services Authority Sheffield Township Municipal Authority Slippery Rock Municipal Authority Smithton Borough Municipal Authority

Somerset Conservation District

South Fayette Township Municipal Authority

Southern Police Commission NU
Southwest Regional Dispatch Center
Southwestern Pa Water Authority
Southwestern Regional Police NU
St. Marys Area Water Authority
Sunbury Municipal Authority
Susquehanna Township Authority

Swatara Township Authority Tower City Borough Authority Township of Falls Authority

Tri-County COG IBC

Tri-County Joint Municipal Authority Twin Boroughs Sanitary Authority

Upper Allegheny Joint Sanitary Authority

Upper Montgomery Joint Authority
Upper Southampton Municipal Authority
Upper Southampton Sewer Authority
Vanport Township Municipal Authority
Vernon Township Sanitary Authority
Vernon Township Water Authority
Warren County Housing Authority

Warren County Solid Waste Authority
Warrington Township Municipal Authority
Warwick Township Municipal Authority

Washington Area COG

Washington Township Municipal Authority (Berks County)
Washington Township Municipal Authority (Fayette County)

Waterford Borough Municipal Authority Wayne County Redevelopment Authority

Wernersville Municipal Authority

Western Butler County Authority

Western Clinton County Municipal Authority Western Westmoreland Municipal Authority Westmoreland-Fayette Municipal San Authority

West Carroll Township Water & Sewer Authority

White Run Regional Municipal Authority

Whitehall Township Authority
Williamstown Borough Authority
Womelsdorf-Robesonia Joint Authority
York County Planning Commission



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