

# Joint Committee on Public Employee Retirement 

## 2018 AnNuAL Report TO THE Missouri General Assembly

STATE OF MISSOURI<br>Joint Committee on Public Employee Retirement

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## Dear Colleague:

The Joint Committee on Public Employee Retirement (JCPER) respectfully submits its 2018 Annual Report for Plan Year 2016 to the General Assembly. This report is designed to comply with the requirements of Section 21.563, RSMo and includes data relating to Missouri's 128 state and local public employee retirement systems. The JCPER hopes this information assists in the transparency of the financial and actuarial condition of Missouri's public employee retirement systems.

This report is the result of the combined efforts of the Joint Committee staff, the Senate's Computer Information Systems staff, and the Senate's Print Shop staff. The JCPER hopes the information contained in this report is helpful to members of the General Assembly in making legislative decisions relating to Missouri's public employee retirement systems.

As policymakers in Missouri and across the country continue to evaluate appropriate retirement benefit levels and work to maintain retirement security for public employees and benefit recipients, the JCPER will continue in its clearinghouse role for comprehensive public pension plan information. This role enables the JCPER to continue in its founding principles of facilitating transparency and providing assistance to the Missouri General Assembly and Missouri taxpayers.

Sincerely,


## Foreword

This 2018 Annual Report is a compilation of statistics for the 128 state and local public employee retirement systems in the state of Missouri for plan year 2016.

In measuring the funded status and progress for each individual plan, the assets are stated using a market value, and if adopted by a plan, a "smoothed" or actuarial value of assets. Plan liabilities are stated using actuarial accrued liability. The JCPER staff obtained this information from the annual surveys, actuarial valuations, financial statements, and Comprehensive Annual Financial Reports for plan year 2016. Although the focus of the report is on plan year 2016, to avoid viewing one plan year in isolation, the report includes four years of data in the appendices to better provide for looking at a trend.

In the defined benefit plan section, the term "interest" under actuarial assumptions refers to the assumed rate of return for investments. The term "inactive" for membership includes terminated vested, retired members, surviving beneficiary, disabled members, and if applicable, terminated nonvested members who have not withdrawn employee contributions.

## Note of Appreciation

The JCPER would like to thank the staff of Senate Computer Information Systems and the Senate Print Shop for their assistance in completing this annual report and each individual plan for its reporting and cooperation with JCPER staff.

## Joint Committee on Public Employee Retirement 99th General Assembly, Second Regular Session



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Executive Summary: In 1983, the Missouri General Assembly established the JCPER as a central reporting entity for Missouri's public pension plans and to provide an analysis function for the General Assembly and Missouri taxpayers. The JCPER is statutorily required to annually compile and submit a report to the General Assembly. In the more than thirty years since collecting its first year of public pension plan data in 1984, the JCPER has served as a resource to the General Assembly. This 2018 annual report reflects pension plan data for plan year 2016.

- The total net assets for Missouri's public pension plans were approximately $\$ 69.2$ billion in plan year 2016, increasing from approximately $\$ 69$ billion in plan year 2015.
- Total plans reporting to the JCPER equaled 128 plans for plan year 2016. Of these, seventy-seven were defined benefit plans, thirty-nine were defined contribution, and twelve were a combination of defined benefit and defined contribution.
- Total membership of Missouri's public pension plans was 613,968, an increase from 596,815 in 2015. Both active membership and inactive membership increased but the gap between the two groups narrowed substantially.
- Net investment income equaled approximately $\$ 1.28$ billion, a decrease from plan year 2015's net investment income of approximately $\$ 1.67$ billion.
- Of the 128 public pension plans in Missouri, sixteen are "statutory" plans meaning that the General Assembly has established the plan in state statute. Because the plan document is contained in state statute, future changes must be made by an act of the General Assembly unless authority has been granted to the plan's board of trustees. The remaining plans are governed locally by a plan sponsor. It is important to note that the statutory pension provisions in Chapter 105 apply to all public pension plans regardless of the sponsoring entities.


## BACKGROUND OF THE JCPER

In 1983, during the First Regular Session of the 82nd General Assembly, Missouri lawmakers established the Joint Committee on Public Employee Retirement (JCPER). The General Assembly took this action in response to the growing concern regarding the fiscal integrity of Missouri's state and local public employee retirement systems. Previously, no centralized reporting agency existed that was charged with maintaining information regarding these public plans. This permanent pension review and oversight body consists of six senators and six representatives. Section 21.553 , RSMo, mandates that the committee be bipartisan in nature by stating that "no political party shall be represented on the committee by more than three members from the Senate nor more than three members from the House." The JCPER is governed by provisions in both Chapters 21 and 105 of the Missouri Revised Statutes. Provisions in Chapter 105 apply to all state and local public employee retirement systems.

## Responsibilities of the JCPER established by Chapter 21:

- Make a continuing study and analysis of all state and local government retirement systems;
- Devise a standard reporting system to obtain data on each public employee retirement system that will provide information on each system's financial and actuarial status at least biennially;
- Determine from its study and analysis the need for changes in statutory law;
- Make any other recommendations to the General Assembly necessary to provide adequate retirement benefits to state and local government employees within the ability of the taxpayers to support their future costs.


## Provisions in Chapter 105 establish the following requirements for public retirement plans:

- Are to be held in trust and shall not be commingled with any other funds;
- Are considered fiduciaries and may invest according to the prudent person standard;
- Submit to the JCPER an actuarial cost statement prior to taking final action on a substantial proposed change in plan benefits;
- May participate in cooperative agreements providing portability of public employee retirement benefits;
- Perform an actuarial valuation at least biennially in compliance with recommended standards of the Governmental Accounting Standards Board (GASB);
- File proposed rules with the JCPER;
- Submit investment performance to the JCPER on a quarterly basis;
- Notify the JCPER within seven calendar days when a plan's governing board takes final action providing a cost-of-living increase or new or additional payments beyond plan provisions of the prior plan year;
- Establish a program of board member education for annual education of board members.


## Activities of the JCPER:

During plan calendar year 2017, the JCPER engaged in the following activities:

- PERS Annual Reporting. The JCPER conducted an annual survey of Missouri's state and local public employee retirement systems and collected information for analysis, including asset values, liabilities,
- benefit levels, membership, asset allocation, advisors, composition of board of trustees, and fees for professional services such as actuary, investment custodian, investment consultants, and administrators. The JCPER reviewed this information, along with actuarial valuations and financial statements, and compiled it into the appendices to this report. It is the policy of the JCPER to examine multiple years of information rather than look at one year in isolation.
- Assistance to the General Assembly. The JCPER staff monitored forty-four retirement-related bills during the 2017 regular legislative session. The General Assembly passed two bills. The Governor signed both into law. (See State Legislation section.)
- Assistance to Local PERS. The JCPER continues to provide assistance to local PERS throughout the state. This assistance may range from individual plan analysis, plan comparisons, and outlining statewide trends. The JCPER continues to advocate this very important function and encourages local PERS to contact it.
- Internet Resource. Information relating to the JCPER is available on the JCPER's website, jcper.org. Maintained by the Senate Computer Information Systems staff, the website provides access to information regarding JCPER committee meetings, statutes governing the JCPER and public employee retirement systems, the JCPER Annual Report and Annual Watch List, a PERS directory, and current and historical state retirement legislation monitored by JCPER staff.


## Statutory Governance of Missouri's Public Pension Plans

Section 21.563, RSMo requires that the JCPER annual report "...include an analysis and statement of the manner in which statutory provisions relating to public employee retirement programs are being executed." Multiple statutory provisions apply to Missouri's state and local public employee retirement systems. Missouri statutes govern public pension plans in two ways. First, sixteen public pension plans are created by statute. Specific statutory provisions govern these plans' boards of trustees, funding and investment requirements, and benefit structure. Second, statutes in Chapter 105 contain provisions that govern all Missouri public pension plans, including provisions relating to fiduciary responsibility, financial reporting, filing of administrative rules, time frame and public availability of actuarial cost statements for certain benefit changes, requirements for actuarial valuations and cost statements, and education requirements for board member education. Public pension plans are required to submit quarterly investment reporting to the JCPER, which reviews this information at its quarterly meetings, and notify the JCPER of cost-of-living adjustments.

## Missouri's Public Employee Retirement Systems

At the close of plan year 2016, 128 public pension plans in Missouri reported to the JCPER. Two plans reported to the JCPER for the first time: Franklin County SB40 Board and the defined contribution component of the University of Missouri Retirement, Disability and Death Benefit Plan for employees hired on or after October 1, 2012.

The charts on the next page provide a breakdown of Missouri's public retirement plans in terms of plan sponsors, showing the various public entity categories that sponsor public retirement plans. Plan sponsors include the state, municipalities, public hospitals, and political subdivisions, including public libraries, public safety entities, and public utility districts. Information for individual plans is included in the Appendices to this report.

For comparison purposes, information for two plan years is included to show the changes that have occurred from year to year regarding plan membership and asset levels.

Plan Year 2016

| PERS | TOTAL \# PLANS | ACTIVE MEMBERS | NON-ACTIVE MEMBERS | ASSETS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Municipalities | 50 | 17,147 | 18,761 | \$ | 5,563,337,866 |
| Fire Protection Districts | 37 | 1,666 | 583 | \$ | 463,825,565 |
| Hospitals \& Health Centers | 9 | 6,776 | 4,481 | \$ | 530,159,578 |
| Statewide | 7 | 110,428 | 111,113 | \$ | 17,103,863,502 |
| Transit Authorities | 5 | 2,397 | 2,117 | \$ | 236,565,312 |
| Public Schools \& Universities | 6 | 161,414 | 161,728 | \$ | 44,083,423,274* |
| Counties | 3 | 5,152 | 6,816 | \$ | 855,223,566* |
| Public Libraries | 1 | 359 | 333 | \$ | 42,703,967 |
| Drainage \& Levee Districts | 1 | 11 | 5 | \$ | 1,303,783 |
| Public Water Supply Districts | 3 | 35 | 5 | \$ | 4,968,998 |
| Sewer Districts | 1 | 953 | 914 | \$ | 255,948,921 |
| Ambulance Districts | 2 | 40 | 8 | \$ | 2,294,287 |
| Other | 3 | 639 | 87 | \$ | 64,437,401 |
| TOTALS | 128 | 307,017 | 306,951 | \$ | 69,208,056,020 * |

The data listed for plan year 2016 shows an increase in both active and inactive members and an increase in overall asset values.

## Plan Year 2015

| PERS | TOTAL \# PLANS | ACTIVE MEMBERS | NON-ACTIVE MEMBERS | ASSETS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Municipalities | 50 | 17,315 | 18,576 | \$ | 5,554,482,128 |
| Fire Protection Districts | 37 | 1,758 | 503 | \$ | 433,449,900 |
| Hospitals \& Health Centers | 9 | 6,473 | 4,748 | \$ | 505,864,121 |
| Statewide | 7 | 110,081 | 106,987 | \$ | 17,580,554,585 |
| Transit Authorities | 6 | 2,357 | 2,067 | \$ | 237,254,372 |
| Public Schools \& Universities | 6 | 153,988 | 156,966 | \$ | 43,498,789,987 |
| Counties | 2 | 5,190 | 6,505 | \$ | 839,474,541 |
| Public Libraries | 1 | 353 | 343 | \$ | 40,219,753 |
| Drainage \& Levee Districts | 1 | 11 | 5 | \$ | 1,327,678 |
| Public Water Supply Districts | 3 | 34 | 3 | \$ | 4,747,447 |
| Sewer Districts | 1 | 951 | 886 | \$ | 247,715,790 |
| Ambulance Districts | 2 | 41 | 9 | \$ | 2,051,957 |
| Other | 3 | 584 | 81 | \$ | 60,903,702 |
| TOTALS | 128 | 299,136 | 297,679 | \$ | 69,006,835,961 |

* The asset values for Plan Year 2016 include the defined contribution component of the University of Missouri Retirement, Disability \& Death Benefit Plan and the Franklin County SB40 Resource Board DC Plan, both of which reported to the JCPER for the first time in 2016. If these two plans' assets were excluded, the Total for plan year 2016 would be $\$ 68,288,021,721$, the Public Schools \& Universities sector would be $\$ 43,163,969,524$, and the Counties sector would be $\$ 854,643,017$.


## Types of Public Employee Retirement Plans:

Two common types of public sector retirement plans exist: Defined Benefit and Defined Contribution.

Defined benefit (DB): The defined benefit plan is the most common type of plan covering Missouri public employees in seventy-seven of the 128 plans. A defined benefit plan is funded by employer contributions, and in some cases, employee contributions. Generally, defined benefit plans specify that a retirement benefit is based on years of creditable service and a final average salary calculation. Most plans calculate the average of a member's salary for three or five years prior to retirement. The most common benefit formula provides that a member will receive a certain percentage of his or her final average salary calculation, known as the benefit multiplier. Typical benefit multipliers range from $1.0 \%$ to $2.5 \%$. The selection of a benefit multiplier is often influenced by whether plan members participate in Social Security.

| Benefit Multiplier | Final Average | Y | Years of | Retirement |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Often between $1.0 \%$ <br> and $2.5 \%$ |  | Salary | $\mathbf{X}$ | Service | $=$ |
| Benefit |  |  |  |  |  |

Alternatively, a few Missouri defined benefit plans calculate the retirement benefit using a flat dollar amount for each year of service. In a defined benefit plan, a member's retirement benefit is payable for the member's lifetime. Depending on the option chosen and plan structure, the plan may also provide disability and/or survivor benefits. It is important to note that the employer bears the investment risk. This report focuses primarily on defined benefit plans.

Defined Contribution (DC): A defined contribution plan consists of employer and/or employee contributions into an individual account with the accumulated account balance available at retirement age including any investment gains or losses. With a defined contribution plan, no minimum benefit is guaranteed or specified for members.


The employee bears the investment risk and is often responsible for making investment decisions. Investment options may include mutual funds, target date retirement funds, or stable value funds. For plan year 2016, thirty-nine defined contribution plans reported to the JCPER.

Hybrid Plan Design: Some plan sponsors offer a retirement plan that incorporates both a DB and a DC component with a minimal lifetime benefit accompanied by an individual employee DC account. Twelve such plans exist in Missouri.

The chart below shows the number of plans by type in Missouri:

## Missouri's Public Employee Retirement Systems



## Social Security Coverage

Social Security coverage is mandatory for the majority of Missouri's public employee plans. Social Security coverage is established and governed by a Section 218 agreement between the employer political subdivision and the Social Security Administration. As described in the State Legislation section of this report, one portion of SB 62 (2017) sought to address the issue of Social Security coverage for the St. Louis Airport Police Officers. Plans whose members are not covered by Social Security generally provide a higher benefit formula and may have lower age and service requirements. Twenty plans are not covered by Social Security, including 83,881 active members and 64,680 inactive members. Eighteen of these plans are defined benefit and two are defined contribution.


## Membership in Missouri's Public Employee Retirement Systems

In plan year 2016, total public plan membership in Missouri increased by 17,153 members from plan year 2015. This number of members is the highest for the past ten years. Both active and inactive membership increased from plan year 2015 and by a greater amount than in previous years. Inactive membership continued to experience substantial growth, a trend beginning in 2010. In plan year 2016, inactive membership increased by 9,272 members. With only sixty-six members of difference between active and inactive, it is possible that in plan year 2017 or 2018 that the number of inactive members may exceed the number of active members for the first time. It is interesting to note that when the JCPER first began reporting plan data, inactive members composed approximately $22 \%$ of total plan membership. In contrast, in plan year 2016, inactive members compose approximately $49.9 \%$ of total membership.


## Funding of Missouri's Public Employee Retirement Systems

Defined benefit pension plans are composed of two primary sources of income and two primary expenditure categories, commonly referred to as the pension funding equation:


These four categories must be adjusted if the income sources do not equal the expenditure categories longterm.

## Contributory Plans and Non-Contributory Plans:

Contributory Plans: A contributory plan requires the employee to contribute a portion of earnings to the plan. The contribution rate varies by plan and is in addition to the employer's contribution. For plans whose members do not participate in Social Security, the contribution rate tends to be higher, in part because, as previously noted, the benefit level tends to be higher. The lowest employee contribution rate is $1 \%$. Out of plans whose members do not participate in Social Security, the highest contribution rate is $18.08 \%$. For plans whose members do participate in Social Security, the highest employee contribution rate is $9 \%$. In addition, at least four plans require employee contributions that are calculated as flat dollar amounts per pay period rather than as a percent of compensation.

For purposes of this report, the Judicial Retirement System, Missouri State Employees' Retirement System, and the MoDOT \& Highway Patrol Employees' Retirement System have been included as contributory even though some employees are required to contribute and some are not; the General Assembly passed legislation requiring employees hired on or after January 1, 2011 to contribute $4 \%$ to these plans.

Non-Contributory Plans: In a non-contributory plan, employees do not contribute. The employer is responsible for making the full contribution.

Optional: Six plans permit, but do not require, employee contributions: one defined benefit plan and five defined contribution plans. First, the Local Government Employees' Retirement System (LAGERS) permits each member political subdivision, as part of its benefit package election, to choose whether to require employees to contribute 4\%. Some employers require employee contributions while others do not. Second, five defined contribution plans provide that employee contributions are optional. As a result, some employees choose to contribute while others do not.

## Employee Contributions by Plan



## Assets \& Liabilities:

To determine the ongoing nature of Missouri's defined benefit plans, the JCPER must examine each plan's assets and liabilities.

Valuation of Assets: Missouri's defined benefit plans value their assets for funding purposes in one of two ways: market or actuarial. First, some plans value their assets at market value, or the true value of assets. Second, some plans use an asset smoothing process where investment gains and losses are recognized over a set period of time to smooth the effect of investment market fluctuations. This smoothing may help to reduce volatility in asset values and the contribution rate. Due to a smoothing method, actuarial values may differ considerably from market values. The chart below lists the number of plans that use a particular asset valuation method.


Ten Year Trend of Assets \& Liabilities of Defined Benefit Plans: Because of the long-term nature of most plans, a one-year snapshot is not particularly useful. As such, the JCPER maintains plan data that enables a trend analysis to be produced over a period of years. The chart on the following page shows a ten year history of the assets and liabilities of the defined benefit plans, beginning with values in 2007, immediately prior to the financial market downturn of 2008-2009. For plan year 2016, actuarial value of assets increased by approximately $\$ 2.62$ billion and liabilities increased by approximately $\$ 3.68$ billion. However, market value of assets decreased from plan year 2015 by approximately $\$ 0.72$ billion. In addition, this chart shows the decline in asset values experienced in 2008 and 2009 and the amount of time that passed before asset levels recovered to prior levels.


This chart also shows the difference between market value of assets and actuarial value of assets and the effectiveness of smoothing to mitigate volatility. For example, market value of assets decreased by approximately $\$ 9.79$ billion between plan years 2008 and 2009 in contrast to a decrease in the actuarial value of assets of approximately $\$ 0.99$ billion. Conversely, this chart also shows how the smoothing in of investment gains may result in slower asset growth than using market value; for example, between plan year 2013 and plan year 2014, market value of assets increased by approximately $\$ 7.6$ billion whereas actuarial value of assets increased by approximately $\$ 4.9$ billion.

Funded Ratio: While many factors must be considered when analyzing a pension plan, one measurement tool is the plan's funded ratio. A funded ratio is a measurement of the plan's assets to liabilities. A plan's funded ratio is calculated in the following manner:


A funded ratio may be calculated using either market value of assets or actuarial value of assets. Missouri statutes use a plan's funded ratio as a benchmark in three situations. First, section 105.685, RSMo requires a pension plan to have a funded ratio of $80 \%$, based on actuarial value of assets, before adopting or
implementing an additional benefit increase or cost-of-living adjustment which would increase the plan's actuarial accrued liability. ${ }^{1}$ Second, section 105.684 requires any plan with a funded ratio of less than $60 \%$ to have the plan's actuary prepare an accelerated contribution schedule. ${ }^{2}$ Third, section 105.683 uses a plan's funded ratio to determine whether a plan is deemed delinquent in contribution payments. ${ }^{3}$ In addition, the JCPER publishes an annual watch list that uses a funded ratio of less than $70 \%$, based on market value of assets, as the threshold for inclusion. As shown in the chart below, due to many plans using a smoothing method for investment gains and losses, a funded ratio on an actuarial basis may differ considerably from a funded ratio on a market value basis.

## Plan Funded Ratios, 2016



The median funded ratio on an actuarial basis is $79 \%$. The median funded ratio on a market value basis is $77 \%$. The average funded ratio on an actuarial basis is $80 \%$. The average funded ratio on a market value basis is $78 \%$. When examining Missouri DB plans as a whole, the funded ratio in the aggregate is $77.8 \%$ on a market value basis and $80.9 \%$ on an actuarial basis.

Amortization of Unfunded Actuarial Accrued Liability (UAAL): When a pension plan has an actuarial accrued liability figure that exceeds its asset values, an unfunded actuarial accrued liability exists. Depending on the actuarial cost method used by the plan, the UAAL may be amortized over a time period as part of an overall plan to reduce, and eventually eliminate, the UAAL. In recent years, the JCPER has requested that each plan provide information relating to the type of amortization method. Plans reporting to the JCPER use one of three amortization approaches: an open period, a closed period, or a closed period with layers. For example, a plan may amortize its UAAL over a thirty year period. A plan using an open thirty year period would mean that the thirty year amortization period is reset every year to a new thirty year period. For an open policy, the UAAL is not expected to be fully amortized. In contrast, a closed period reduces the amortization period by one year annually until the UAAL is fully amortized, similar to a home mortgage. A layered approach uses an initial base of a period of years with each additional year's gains or losses amortized separately over a period of years. For example, a plan might set up an initial base to be amortized over

## Footnotes:

1. Mo. Ann. Stat. § 105.685 (West 2015).
2. Mo. Ann. Stat. § 105.683 (West 2015).
3. Mo. Ann. Stat. § 105.684 (West 2015).
thirty years with each subsequent year's investment gains or losses set up as a separate layer to be amortized over a period of twenty years.

At least nine plans use the Aggregate cost method, under which an amortization period is not established because the cost method does not provide for an unfunded past service liability. Thirty plans use an open amortization period. Twenty-six plans use a closed amortization period. Seventeen plans use a closed amortization period with additional layers.

Actuarial Assumptions: Because predicting the future is a difficult proposition, each plan's actuary must provide recommendations of assumptions to be used and decided on by governing boards. These assumptions are key in determining the value of future liability, possible future behavior of plan participants, and as a result, plan contributions or costs. Generally, actuarial assumptions fall into two broad categories. First, economic assumptions are tied to financial "behavior." Second, demographic assumptions are tied to plan member "behavior." These assumptions assist in projecting future behaviors and benefit obligations.

Primary Economic Assumptions include: Investment Rate of Return, Price Inflation, Salary Increases, Payroll Growth.

Primary Demographic Assumptions include: Mortality, Retirement Rate, Turnover/Withdrawal Rate

Investment Rate of Return: With the investment markets boom in the 1990s, many plan investment strategies were modified, and in some cases, plan investment rate of return assumptions were increased accordingly. However, investment markets have changed since the early 2000s, particularly after the financial downturn of 2008-2009. This change has resulted in many plans reevaluating capital market expectations and the reasonableness of their investment rate of return assumptions. The National Association of State Retirement Administrators has described how low interest rates and inflation since the economic downturn of 2008-2009 has resulted in lower expectations for returns in most asset classes. ${ }^{4}$ As a result, many plans have reduced their assumptions for investment rate of return. Of 129 plans surveyed nationwide, NASRA found that three-quarters have reduced the assumption since fiscal year 2010. In addition, the average return assumption has decreased from 7.9 to 7.36 . NASRA also notes the difficulty plans face in adjusting assumptions when short-term expectations may differ from long-term expectations.

Missouri's plans continue to adjust the assumed investment rate of return. Since 2009, some pension plan governing boards have decreased the investment rate of return assumption. This trend of decreasing the assumption increased in plan years 2015 and 2016. Furthermore, by the close of plan year 2016, no Missouri plan was using an $8 \%$ investment rate of return assumption. The investment rate of return assumption used by Missouri plans ranged from 4.75 to 7.75 . The median is 7.0 . The average is 6.94 . The chart on the next page shows the distribution of investment rate of return assumptions from plan year 2013 through plan year 2016.

4 National Association of State Retirement Administrators, Issue Brief, "NASRA Issue Brief: Public Pension Plan Investment Return Assumption," February 2018, https://www.nasra.org/files//ssue\ Briefs/
NASRAInvReturnAssumptBrief.pdf


Looking Ahead: Between the close of plan year 2016 and the time of this report's publication, the JCPER staff is aware of at least six plans that have decreased their investment rate of return assumption based on evaluating the results of an experience study, an existing schedule, or upon recommendation of the actuary.

Contribution Rates: Public pension plans serve many purposes, which may include recruiting and retaining quality employees, being a part of a comprehensive compensation package, ensuring a dynamic and changing workforce, and facilitating retirement security. Inherently, the payment of benefits earned by membership is the primary obligation and purpose of a public pension plan. A plan's ability to meet this obligation is necessarily correlated to receiving plan revenues and adhering to the previously noted pension funding equation. Plan revenues are comprised of employer/employee contributions and investment returns.

The investment market environment of the last decade has resulted in higher recommended contribution levels. In addition, as plan governing boards have modified plan assumptions in an effort to reflect the changing demographic and financial experience, plan contribution rates have been affected. Although public pension plans are viewed as long-term entities due to the perpetual nature of government, the necessity to meet annual budgetary requirements with increased plan contribution rates may be challenging for plan sponsors. In October 2009, the Government Finance Officers Association (GFOA) recommended that government employers contribute the full annual required contribution to assist in pension plan sustainability. In plan year 2016, approximately $66 \%$ of Missouri's plans either met or exceeded the full contribution. Approximately $39 \%$ of plans exceeded the full contribution.

Plan year 2016 aggregate employer contributions increased to approximately $\$ 2.072$ billion, an increase of approximately $\$ 7$ million from plan year 2015's aggregate employer contributions of approximately $\$ 2.065$ billion. Aggregate employee contributions in plan year 2016 were approximately $\$ 985$ million, an increase
of approximately $\$ 31$ million from 2015's $\$ 953$ million.


Expenses: Expenses in plan year 2016 increased from plan year 2015 with benefit payments constituting the largest increase. Benefit payments increased from approximately $\$ 4.7$ billion in 2015 to approximately $\$ 4.89$ billion in 2016. Refunds, however, decreased.

Expenses, 2013-2016 (in millions)


## Investments \& Asset Allocation

Statutory Investment Requirements: Chapter 105 of the Revised Statutes of Missouri governs Missouri's public pension plans, including provisions relating to plan investments and pension plan boards of trustees fiduciary responsibilities. Specifically, section 105.688 mandates the use of the Prudent Person Rule, which requires plan investment fiduciaries to "discharge his or her duties in the interest of the participants in the system and their beneficiaries and shall...act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims..." ${ }^{5}$ In addition, this statute further requires plan investment fiduciaries to make "...investments for the purposes of providing benefits to participants and participants' beneficiaries, and of defraying reasonable expenses of investing the assets of the system..." ${ }^{6}$ Given that investment income is one of two sources of income in the pension funding equation, it is critical that fiduciaries develop and review investment policies, strategies, and asset allocation. Each plan board of trustees sets an investment policy based on the fiduciary standards previously mentioned.

Asset Allocation: Section 105.688 also requires that plan fiduciaries give appropriate consideration to the diversification of the investments of the system. The chart below shows aggregate plan year 2016 asset allocation used by Missouri's PERS. The level of diversification and variety of asset classes often varies based on the size of the PERS; the larger PERS have opportunities to invest in alternative asset classes such as private equity, hedge funds, and commodities unlike smaller PERS. Smaller PERS are more likely to invest in mutual funds or exchange traded funds. Plan members in DC plans may have options to self-direct their investments with options such as mutual funds, target date funds, or stable value funds.


5 Mo. Ann. Stat. § 105.688 (West 2015).
6 Mo. Ann. Stat. § 105.688 (West 2015).

The "Other" category includes some plan investments that do not fit under one of the other categories. Examples include mutual funds that contain exposure to more than one asset class, such as fixed income funds that include government and corporate bonds, and target date retirement funds used in defined contribution plans, which contain a mixture of equities and fixed income holdings. The "Other Alternative" category may include commodities, timber, and infrastructure investments.

The total amount of assets identified in the asset allocation chart does not necessarily equal the aggregate market value of assets at the end of plan year 2016 due to different portfolio structures and investments.

## Pension Reforms

Based on data analyzed from a survey of approximately 246 state and local government retirement plans between 2009 and 2014, the Center for State \& Local Government Excellence found that 74\% of state plans and $57 \%$ of large local plans have adopted pension reforms to address rising costs. ${ }^{7}$ In addition, a June 2016 report from NASRA found that the events of the economic recession of 2007-2009 resulted in nearly all states pursuing some form of pension reform. ${ }^{8}$ The NASRA report indicated that the number of changes was unprecedented and due to different state pension structures, budgets, costs, and legal frameworks, no single change or reform could apply to each situation. On the whole, the majority of pension reforms have included requiring greater employee contributions, reductions in cost of living adjustments, increasing em-ployee age and service requirements, and in some cases, decreasing benefits. Missouri is no exception. Since 2009, at least twenty-four Missouri defined benefit plans have implemented structural changes in an effort to address cost containment concerns. Examples include reducing a benefit multiplier, reducing or eliminating a COLA, increasing employee contributions, increasing age and service requirements, and re-ducing the amount of employee contributions refunded upon retirement. Some plan sponsors have enacted a new benefit tier for employees hired on or after a certain date, often including some of the previously men-tioned changes. Other plan sponsors have closed or frozen a defined benefit plan and either established a new defined contribution plan or joined Missouri LAGERS.

## National Issues

Public pension issues continue to be highlighted cross the country. The role of the federal government relative to pensions has been a source of discussion for many decades since the passage of the Employee Retirement Income Security Act (ERISA) in 1974. In February 2018, Congress included in its budget act the creation of the bipartisan Joint Select Committee on the Solvency of Multiemployer Pension Plans to improve the solvency of multiemployer plans and the federal Pension Benefit Guaranty Corporation. Also at the national level, in June 2015, the Governmental Accounting Standards Board (GASB) issued two statements relating to reporting for OPEB, or postemployment benefit plans other then pension plans. Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans and Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions, will

[^0]affect how state and local governments perform accounting and financial reporting of OPEB liabilities. Implementation dates for the statements are for plan fiscal years beginning after June 15, 2016 (74) and June 15, 2017 (75).

## State Issues

As the Second Regular Session of the Missouri 99th General Assembly convenes, legislators will face numerous topics, with budgetary issues likely being the most difficult. While the State appropriations process may not directly affect most of Missouri's public pension plans, a primary source of revenue for all plans is the Missouri taxpayer. This fundamental concept continues to be paramount when the General Assembly sets public policy. To monitor pension related legislation during the 2018 legislative session, weekly updates are posted to the JCPER's website: http://jcper.org/weekly-pension-legislation/

During the 2017 regular session, legislators introduced forty-four pension-related bills. At the end of session, two pension-related bills were truly agreed to and finally passed. Both bills were signed by the Governor.

Senate Bill 34: Omnibus crime bill containing multiple provisions of law. One provision revised the felony conviction pension forfeiture law previously enacted in 2014. Applies to all public pension plans.

Senate Bill 62: Introduced as a single-provision bill to change the contribution amount for the College and University Retirement Plan. It requires employers to contribute 6\% and requires employees to contribute 2\%. Later, the bill was amended and became an omnibus pension bill. Included provisions relating to the following retirement systems:

- All public plans: Revised the felony conviction pension forfeiture law previously enacted in 2014;
- County Employees' Retirement Fund: Increased certain fees and penalties used to fund the retirement system;
- MOSERS \& MPERS: Decreased the vesting requirement from ten years to five years for employees hired on or after January 1, 2011. Contained three offsets for terminated vested members to make the change cost-neutral;
- MOSERS \& MPERS: Permitted the MOSERS and MPERS boards of trustees to implement a buy-out program for terminated vested members;
- PSRS \& PEERS: Changed the timeframe for notification of remarriage and nomination of a successor beneficiary from ninety days to one year. Permits a divorced member who meets certain conditions to pop-up from a reduced benefit with survivor annuity to a single-life annuity;
- PSRS \& Kansas City PSRS: Modified return-to-work laws for members receiving retirement benefits;
- St. Louis Airport Police Officers: Addressed transfers between retirement systems for St. Louis Airport Police Officers. Testimony in committee indicated this provision was needed to address a Social Security coverage issue;
- St. Louis PSRS: Lowered the rule of 85 to rule of 80 . Statutorily established employee and employer contribution rates. Employee contributions will increase to $9 \%$ and the employer contribution rate will decrease by $0.5 \%$ annually to $9 \%$. Lowers the benefit formula multiplier from 2.0 to 1.75 for employees hired on/after 1/1/18.


## Implementation of House Bill 1443 (2016)

Calendar year 2017 saw the implementation of House Bill 1443 (2016), which permitted the LAGERS board of trustees to enter into an agreement with the board of trustees of a LAGERS-member political subdivision for LAGERS to assume the duties and responsibilities of operating a prior closed or frozen pension plan. In calendar year 2017, LAGERS assumed the operation of both Jefferson City Firemen's Retirement System and Jennings Police \& Firemen's Retirement Fund. Both plans had been closed for a number of years; plan sponsors had previously testified in legislative committee in favor of the legislation.

## Looking Forward \& Conclusion

This annual report contains information from the JCPER's annual survey for plan year 2016. However, since the end of plan year 2016 on December 31, 2016, and through this report's publication in early March 2018, significant changes have occurred in the investment markets. In contrast to much of 2015 and 2016, beginning after the November 2016 presidential election, the investment markets have experienced strong performance with equities, in particular, reaching record high levels. Quarterly investment performance reporting to the JCPER under section 105.661, RSMo during calendar year 2017 has shown the positive impact these investment market gains have had on many, if not most, of Missouri's state and local public employee retirement systems.

Nevertheless, this strong performance in the investment markets has been met with increasing volatility. In mid-February 2018, shortly before publication of this report, domestic stock market indices dropped significantly. Although markets appear to have rebounded somewhat from this drop, there have been concerns raised about increasing volatility in investment markets. Additional uncertainty exists regarding the possibility of rising interest rates and increasing inflation. At the same time, public plans continue to evaluate recent positive investment performance in conjunction with lower long-term capital market expectations.

As these challenges for public pension plans and state and local governments continue to exist, the mission of the JCPER has never been more important. The existence of the JCPER was a direct response to the very public concerns of the stability of public pension plans in the early 1980s. Established in 1983, the JCPER continues to serve as the centralized reporting entity for Missouri's public pension plans. In light of the continued response to public plan experience, it is essential that the General Assembly insist on proper disclosure to ensure transparency of plan information.


# Defined Benefit Plans 

## It should be noted that data included in these appendices reflect PERS information from plan year 2016.

# AFFTON FIRE PROTECTION DISTRICT RETIREMENT PLAN 

MEMBERSHIP:
Active: 39 Inactive: 26
CONTRIBUTIONS:
Employer: $\$ 300,389$ Employee: $\$ 229,679$
BENEFITS:
Normal Retirement Formula:
1.7333\% of compensation x years of creditable service

Early retirement reduced 2\% per year less 30 Years
Temporary Benefit: Supplemental Benefit: \$500 monthly to Medicare eligiblity
Normal Retirement Eligibility:
Age 60 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP 2014 Healthy Male, set back 4 years for females
Vesting: Partial 3 / Full 7
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 6.5\% Salary: 3.5\%


## ANTONIA FIRE PROTECTION DISTRICT PENSION PLAN

MEMBERSHIP:
Active: 15 Inactive: 6
CONTRIBUTIONS:
Employer: \$101,925 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
2.25\% of compensation for first 24 years of service + 1\% for next 6 years of service

Normal Retirement Eligibility:
Age 55
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: Blue Collar RP 2014 with SSA 2016 from 2006
Vesting: Partial 4 / Full 10
COLA: No COLA
ACTUARIAL ASSUMPTION:
Interest: 6.00\%
Plan frozen effective January 2009. Joined LAGERS in 2012.


## ARNOLD POLICE PENSION PLAN

```
                        MEMBERSHIP:
            Active: 48 Inactive: 13
            CONTRIBUTIONS:
    Employer: $343,409 Employee: $241,540
            BENEFITS:
            Normal Retirement Formula:
2.5% of compensation x years of creditable service
            Maximum: 75% of compensation
            Normal Retirement Eligibility:
            Age 55 with 5 years of service
            Social Security Coverage: Yes
            Valuation of Assets: Market Value
            Mortality Table: RP-2000
                    Vesting: 5
                    COLA: No COLA
            ACTUARIAL ASSUMPTIONS:
        Interest: 6.5% Salary: 4.5%
```



## BERKELEY POLICE \& FIRE PENSION FUND

MEMBERSHIP:
Active: 52 Inactive: 55
CONTRIBUTIONS:
Employer: $\$ 199,306$ Employee: $\$ 135,375$
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation for first 20 years of service $+1 \%$ for next 5 years of service
Maximum: 55\% of compensation
Normal Retirement Eligibility:
Age 55 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 with generational projection using Scale AA
Vesting: 10
COLA: Annual Amount Maximum: 3\% (COLA eliminated at the April 2016 municipal election)
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 4\%


## BI-STATE DEVELOPMENT AGENCY DIVISION 788, A.T.U.

## MEMBERSHIP:

Active: 1,378 Inactive: 1,309
CONTRIBUTIONS:
Employer: \$9,342,714 Employee: \$3,684,213
BENEFITS:
Normal Retirement Formula:
$\$ 40$ times years of Credited Service for those retiring with less than 25 years of Credited Service, $\$ 55$ times years of Credited Service for those retiring with 25 or more years of Credited Service

Normal Retirement Eligibility:
Age 65
Age 55 with 20 years of service
25 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Blue Collar adjustment Scale BB
Vesting: 10
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 7.00\% Salary: 3.5\%


## BI-STATE DEVELOPMENT AGENCY LOCAL 2 I.B.E.W.

MEMBERSHIP:
Active: 56 Inactive: 15
CONTRIBUTIONS:
Employer: \$319,220 Employee: \$102,601
BENEFITS:
Normal Retirement Formula: $\$ 60 \times$ years of credited service

Normal Retirement Eligibility:
25 years of service
Age 60 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Blue Collar, Scale BB
Vesting: 10
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS: Interest: 7\% Salary: N/A

Plan closed 1/1/2014.


## BI-STATE DEVELOPMENT AGENCY SALARIED EMPLOYEES

MEMBERSHIP:
Active: 329 Inactive: 460
CONTRIBUTIONS:
Employer: \$2,752,597 Employee: \$555,834
BENEFITS:
Normal Retirement Formula:
$1.5 \%$ of compensation $x$ years of creditable service
Normal Retirement Eligibility:
Age 60 with 5 years of service

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 Healthy Annuitant with White Collar adjustment, projected 5 years using Scale BB
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.00\% Salary: 4.50\%
Plan closed 7/1/13 to new participants


## BLACK JACK FIRE PROTECTION DISTRICT RETIREMENT PLAN



Employer: $\$ 1,625,285$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$1.2 \%$ of compensation $x$ years of creditable service

Normal Retirement Eligibility:
Age 65 with 5 years of service Rule of 85

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 Generational with Scale MP-2015
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.75\% Salary: 3\%
Plan closed June 2006 - see corresponding information in defined contribution section.


## BRENTWOOD POLICE \& FIREMEN'S RETIREMENT FUND

MEMBERSHIP:
Active: 49 Inactive: 37
CONTRIBUTIONS:
Employer: \$995,088 Employee: \$250,484
BENEFITS:
Normal Retirement Formula:
$3.50 \%$ of compensation for first 20 years of service + 1\% for next 10 years of service

## Normal Retirement Eligibility: <br> Age 55 with 10 years of service <br> Social Security Coverage: No

Valuation of Assets: Market Value
Mortality Table: RP-2014 Healthy Annuitant for males, setback 4 yrs for females
Vesting: 10
COLA: Annual Amount Maximum: 2\%
Cap Total Max: 20\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 4.5\%


## BRIDGETON EMPLOYEES RETIREMENT PLAN

MEMBERSHIP:
Active: 94 Inactive: 157
CONTRIBUTIONS:
Employer: $\$ 1,525,000$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation $\times$ years of creditable service
Normal Retirement Eligibility:
Age 60 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: 3 years smoothing
Mortality Table: RP-2000 projected fully generational using scale BB

```
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\% Salary: 4.0\%
```

Plan Frozen to new entrants effective January 1, 2012


## CARTHAGE POLICEMEN'S \& FIREMEN'S PENSION PLAN

## Active: 50 Inactive: 54

CONTRIBUTIONS:
Employer: $\$ 416,355$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation for first 20 years of service $+1 \%$ for next 15 years of service
Normal Retirement Eligibility:
Age 55 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Generational with MP-2016 Scale
Vesting: Partial 5 / Full 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.5\%


# CEDAR HILL FIRE PROTECTION DISTRICT LENGTH OF SERVICE AWARDS PROGRAM 

## MEMBERSHIP:

Active: 12 Inactive: 14
CONTRIBUTIONS:
Employer: $\$ 25,316$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$\$ 15 /$ month $x$ years of service; $\$ 450 /$ month maximum; life annuity guaranteed for 10 years

Normal Retirement Eligibility:
Age 65 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP-2000
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 4.75\% Salary: N/A
Plan closed to new members 12/1/14


## CLAYTON NON-UNIFORMED EMPLOYEES PENSION PLAN

## MEMBERSHIP:

Active: 83 Inactive: 97
CONTRIBUTIONS:
Employer: \$559,056 Employee: \$151,618
BENEFITS:
Normal Retirement Formula:
$1.5 \%$ of compensation x years of creditable service
Normal Retirement Eligibility:
Age 60 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Assumed Yield, 20\% adjusted to market
Mortality Table: RP-2000 Combined Healthy Generational Scale BB
Vesting: 5
COLA: Annual Amount Maximum: 2\%
Percent of CPI: 100\%
Cap Total Maximum: 25\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 4.0\%


## CLAYTON UNIFORMED EMPLOYEES PENSION PLAN

MEMBERSHIP:
Active: 84 Inactive: 77
CONTRIBUTIONS:
Employer: \$945,822 Employee: \$283,997
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation $x$ years of creditable service
Maximum: 60\% of compensation
Normal Retirement Eligibility:
Age 55 with 10 years of service
Age 50 with 25 years of service Age 65 with 5 years of service

Social Security Coverage: Yes
Valuation of Assets: 3 years smoothing
Mortality Table: RP 2000 Blue Collar with generational improvement Scale BB
Vesting: 10
COLA: Annual Amount Maximum: 2\% Percent of CPI: 100\%
CAP Total Maximum: 25\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.5\%


## COLUMBIA FIREMEN'S RETIREMENT PLAN

MEMBERSHIP:
Active: 139 Inactive: 161
CONTRIBUTIONS:
Employer: \$5,226,250 Employee: \$1,212,139
BENEFITS:
Normal Retirement Formula:
Tier 1: 3.5\% of compensation for first 20 years of service $+2 \%$ for next 5 years of service
Maximum: $80 \%$ of compensation
Tier 2 (Hired on/after 10/1/12): 2.5\% of compensation x years of service. No maximum benefit.

Normal Retirement Eligibility:
Tier 1: Age 65 or 20 years of service
Tier 2 (Hired on/after 10/1/12): Age 55 with 1 year of service. Rule of 80.
Social Security Coverage: No
Valuation of Assets: 4 years smoothing
Mortality Table: RP 2014
Vesting: 1
COLA: Annual Amount Minimum: 2\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.25\%


## COLUMBIA POLICE RETIREMENT PLAN

MEMBERSHIP:<br>Active: 151 Inactive: 173<br>CONTRIBUTIONS:<br>Employer: \$3,812,192 Employee: \$341,495<br>BENEFITS:<br>Normal Retirement Formula:

Tier 1: 3\% of compensation for first 20 years of service $+2 \%$ for next 5 years of service
Maximum: 70\% of compensation
Tier 2 (Hired on/after 10/1/12): $2 \%$ of compensation for first 25 years of service $+1.5 \%$ for each year over 25 . Max of $57.5 \%$ of compensation.
Normal Retirement Eligibility:
Tier 1: 20 years of service or age 65
Tier 2 (Hired on/after 10/1/12): 25 years of service or age 65
Social Security Coverage: Yes
Valuation of Assets: 4 years smoothing
Mortality Table: RP 2014
Vesting: 1
COLA: Annual Amount Minimum: 0.6\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.25\%


```
            MEMBERSHIP:
            Active: 60 Inactive: 18
            CONTRIBUTIONS:
            Employer: $1,054,811 Employee: Non-Contributory
            BENEFITS:
            Normal Retirement Formula:
                            60% of compensation
or the actuarial equivalent of participants prior DC balance.
                    Normal Retirement Eligibility:
                    Age 60 with 20 years of service
                    Age 62 with 5 years of service
                    Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Blue Collar
                    Vesting: 5
                    COLA: No COLA
            ACTUARIAL ASSUMPTIONS:
            Interest: 7% Salary: 4%
```



## COUNTY EMPLOYEES' RETIREMENT FUND

## MEMBERSHIP:

Active: 11,303 Inactive: 7,054
CONTRIBUTIONS:
Employer: \$20,329,625 Employee: \$13,731,104
BENEFITS:
Normal Retirement Formula:
$\$ 29 \times$ years of credited service
Greater of Flat Dollar formula, TRR formula-Social Security offset, or Prior Plan formula.
Normal Retirement Eligibility:
Age 62 with 8 years of service

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 projected to 2022 using Scale BB

## Vesting: 8

COLA: Annual Amount Maximum: 1\%
Cap Total Maximum: 50\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\% Salary: 2.5\%
Defined Contribution Plan: See Corresponding Information in Defined Contribution Section


## CREVE COEUR EMPLOYEES RETIREMENT PLAN

```
                                    MEMBERSHIP:
                            Active: 50 Inactive: 98
                            CONTRIBUTIONS:
                            Employer: $1,270,402 Employee: $112,251
                                    BENEFITS:
                            Normal Retirement Formula:
                            2% of compensation x years of creditable service
or 1.7% of compensation x years of service + 3% Employer Contribution to DC Plan; Maximum: 30 years of service
                    Normal Retirement Eligibility:
                    Age 65 with 8 years of service
                            Rule of }8
                            Uniformed: Age 55 with 8 years of service
```


## Social Security Coverage: Yes

```
Valuation of Assets: 3 years smoothing
Mortality Table: RP-2000 Combined Healthy with 70\% Blue Collar, generational
```


## Vesting: 8

```
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 4\%
Defined Benefit Plan Closed June 2006. Defined Contribution Plan: See Corresponding Information in Defined Contribution Section
```



## CREVE COEUR FIRE PROTECTION DISTRICT RETIREMENT PLAN

```
    MEMBERSHIP:
    Active: 57 Inactive: 37
    CONTRIBUTIONS:
Employer: $242,437 Employee: Non-Contributory
                                    BENEFITS:
                            Normal Retirement Formula:
\(70 \%\) of compensation offset by \(66.66 \%\) of primary Social Security Benefits Also offset by actuarial equivalent of monthly defined contribution benefit
Normal Retirement Eligibility:
Age 55 with 20 years of service
25 years of service
Social Security Coverage: Yes
Valuation of Assets: 3 years smoothing
Mortality Table: RP 2000 Blue Collar Scale BB, generational
Vesting: 20
COLA: No COLA
ACTUARIAL ASSUMPTIONS: Interest: 7\% Salary: 4.0\%
Defined Contribution Plan: See Corresponding Information in Defined Contribution section
```



## EUREKA FIRE PROTECTION DISTRICT RETIREMENT PLAN

## MEMBERSHIP:

Active: 31 Inactive: 29
CONTRIBUTIONS:
Employer: $\$ 405,000$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
2.5\% of compensation $x$ years of creditable service

Service earned on/after $1 / 1 / 14$ : $2 \%$ of average compensation $x$ years of service. Maximum: 30 years of service
Normal Retirement Eligibility:
Age 55 with 5 years of service
30 years of service
Hired after June 11, 2013: Age 55 with 10 years of service
30 years of service
Social Security Coverage: Yes
Valuation of Assets: 4 years smoothing
Mortality Table: 2017 IRS Optional Combined Male Table for Small Plans
Vesting: 5, 10 if hired after June 11, 2013
COLA: Ad hoc

ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 4.5\%


## FENTON FIRE PROTECTION DISTRICT RETIREMENT PLAN

## MEMBERSHIP:

Active: 59 Inactive: 25
CONTRIBUTIONS:
Employer: \$969,288 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation x years of creditable service. Maximum of 30 years of service. Those hired prior to $3 / 1 / 06$ have $3 \%$ multiplier + supp benefit from $55-65$ of $\$ 13 \times$ years of service.

Normal Retirement Eligibility:
Age 55 with 15 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP2006 projected using scale MP 2016
Vesting: Partial 10 / Full 15
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.00\%
Salary: 3\%


## FERGUSON PENSION PLAN

## MEMBERSHIP:

Active: 108 Inactive: 134
CONTRIBUTIONS:
Employer: \$547,500 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$1.75 \%$ of compensation $\times$ years of creditable service
Normal Retirement Eligibility:
Age 60 with 8 years of service
After age 55 , early retirement may be elected if sum of age and credited service is greater than 82.5
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 Blue Collar, Scale BB, projected to 2020
Vesting: 8
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\%
Salary: 3.25\%


FIREFIGHTERS' RETIREMENT PLAN OF ST. LOUIS CITY

## Active: 627 Inactive: 55

CONTRIBUTIONS:
Employer: \$9,148,007 Employee: \$2,918,622
BENEFITS:
Normal Retirement Formula:
$2 \%$ of average final compensation for the first 25 years of service $+2.5 \%$ ( $5 \%$ for grandfathered participants) of average final compensation in excess of 25 years of service. Maximum benefit: 75\%

Normal Retirement Eligibility
Age 55 with 20 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2000 projected to 2015, Combined Healthy, Scale AA
Vesting: Partial 10 / Full 20

COLA: Annual amount minimum: 1.5\%
Annual Amount Maximum: 5\% Cap Total Maximum: 25\%

ACTUARIAL ASSUMPTIONS:

```
Interest: 7.625% Salary: 3%
```



## FLORISSANT EMPLOYEES PENSION PLAN

MEMBERSHIP:
Active: 16 Inactive: 39
CONTRIBUTIONS:
Employer: \$616,284 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation $\times$ years of creditable service
Normal Retirement Eligibility:
The later of age 60 or 10 years of service
Rule of 85
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: ERISA minimum funding 2016
Vesting: Partial 5 / Full 15
COLA: No COLA
ACTUARIAL ASSUMPTIONS: Interest: 6.0\% Salary: 3.0\%

Plan closed December 2000.
Defined Contribution Plan. See Corresponding Information in Defined Contribution section.


Employer: \$2,512,515 Employee: \$52,714
BENEFITS:
Normal Retirement Formula:
2.5\% of compensation x years of creditable service Maximum: 30 years; limited to $75 \%$ of average monthly earnings.

Normal Retirement Eligibility:
Age 60 or 30 years of service

Social Security Coverage: Yes
Valuation of Assets: Market value
Mortality Table: 1983 GAMT, set back 6 yrs for females
Vesting: Partial 10 / Full 15
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 6.25\% Salary: 3.5\%


## GLENDALE POLICE \& FIRE PENSION PLAN

## MEMBERSHIP:

Active: 25 Inactive: 20
CONTRIBUTIONS:
Employer: \$130,235 Employee: \$51,312
BENEFITS:
Normal Retirement Formula:
$50 \%$ of compensation for first 20 years of service $+1 \%$ of compensation for each year of service over 20 years of service
Normal Retirement Eligibility:
Age 55 with 15 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 blue collar, MP-2015 generational
Vesting: Partial 5 / Full 15
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: $7.25 \% \quad$ Salary: $3.5 \%$


HANNIBAL POLICE \& FIRE RETIREMENT PLAN
MEMBERSHIP:
Active: 75 Inactive: 69
CONTRIBUTIONS:
Employer: \$1,264,977* Employee: \$457,380
BENEFITS:
Normal Retirement Formula:
$65 \%$ of compensation for first 25 years of service $+1 \%$ for each of the next 5 years of service Max: 70\% of comp.

Normal Retirement Eligibility: 25 years of service
Hired on or after 7-1-07, minimum age of 55 before receiving a benefit.

Social Security Coverage: No
Valuation of Assets: Market Value
Mortality Table: RP-2015 Blue Collar generational mortality
Vesting: Partial 12 / Full 20
COLA: Ad Hoc
No Cola if below $50 \%$ funded
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 3.5\%

* Employer contribution amount includes tax receipts of $\$ 316,967$




## HAZELWOOD RETIREMENT PLAN

## MEMBERSHIP:

Active: 179 Inactive: 126
CONTRIBUTIONS:
Employer: \$1,247,549 Employee: Non-Contributory

BENEFITS:
Normal Retirement Formula:
2\% of compensation x years of creditable service
Maximum: 30 years of service
Normal Retirement Eligibility:
The later of age 60 or 25 years of service Rule of 85 with age 55

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 70\% Blue Collar Adjustment, Scale BB, generational
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: $7.5 \% \quad$ Salary: $4.5 \%$


## HIGH RIDGE FIRE PROTECTION DISTRICT PENSION PLAN

## MEMBERSHIP:

Active: 37 Inactive: 11
CONTRIBUTIONS:
Employer: \$409,527 Employee: Non-Contributory
BENEFITS
Normal Retirement Formula:
$\$ 100$ per month $x$ years of service. Maximum: 50 years of service

## Normal Retirement Eligibility:

Age 55 with 10 years of service

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 Blue Collar with Social Security Generational Improvements from 2016

> Vesting: 10
> COLA: No COLA
> ACTUARIAL ASSUMPTION:

Interest: 7.0\%

Defined contribution plan. See Corresponding Information in Defined Contribution Section.


## JACKSON COUNTY EMPLOYEES PENSION PLAN

## MEMBERSHIP:

Active: 1,265 Inactive: 2,362
CONTRIBUTIONS:
Employer: \$8,965,045 Employee: \$22,294
BENEFITS:
Normal Retirement Formula:
$1.5 \%$ of compensation $x$ years of creditable service
Elected officials: $4.167 \% \mathrm{x}$ final average salary x first $12 \mathrm{yrs}+5 \%$ for $\mathrm{yr} 12-16$
Normal Retirement Eligibility:
Age 65 with 5 years of service
Rule of 80 at age 55
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Combined, with MP-2014 generational improvements
Vesting: 5
COLA: Annual Amount Maximum: 3\%
Determined annually.
ACTUARIAL ASSUMPTIONS:
Interest: $7 \%$ Salary: 4\%


```
    MEMBERSHIP:
    Active: 0 Inactive: 56
    CONTRIBUTIONS:
    Employer: $0 Employee: $0
                            BENEFITS:
        Normal Retirement Formula:
        60% of compensation
    2.5% of compensation x years of creditable service
            Maximum: 85% of compensation
            Normal Retirement Eligibility:
            Age 55 with 24 years of service
                    Rule of }8
            Social Security Coverage: No
            Valuation of Assets: Market Value
            Mortality Table: RP-2014 Healthy Annuitant
                    Vesting: 10
                COLA: Annual Amount: 2.0%
                ACTUARIAL ASSUMPTION:
            Interest: 5.5%
```

Plan closed effective December 2008; active members moved to LAGERS. Plan is now administered by LAGERS under section 70.621.


## JENNINGS POLICE \& FIREMEN'S RETIREMENT FUND

MEMBERSHIP:
Active: $0 \quad$ Inactive: 39
CONTRIBUTIONS:
Employer: \$189,890
Employee: \$0
BENEFITS:
Normal Retirement Formula:
2.25\% of compensation x years of creditable service

Maximum: 50\% of compensation
Normal Retirement Eligibility:
Age 55 with 20 years of service
Age 65 with 15 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value

Mortality Table: RP-2014 Blue Collar, Generational, Scale MP 2014
Vesting: 10
COLA: No COLA

ACTUARIAL ASSUMPTIONS:
Interest: 6\%
Plan closed effective 4/1/1987. New hires joined LAGERS. Plan is now administered by LAGERS under section 70.621.


## JOPLIN POLICE \& FIRE PENSION PLAN

## MEMBERSHIP:

Active: 199 Inactive: 160
CONTRIBUTIONS:
Employer: $\$ 2,619,993$ Employee: $\$ 1,281,360$

## BENEFITS:

Normal Retirement Formula:
$2.2 \%$ of compensation for first 25 years of service $+1 \%$ for next 5 years of service. Maximum $60 \%$.
Hired before 2009: $2.5 \%$ percent of compensation for first 20 years, plus $1 \%$ for each of the next 5 years. Maximum $65 \%$.
Normal Retirement Eligibility:
Age 60 or 25 years of service
Hired before 2009: 20 years of service

Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 projected to 2016 , using scale AA
Vesting: 25
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 2.5\%


## JUDICIAL RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 408 Inactive: 566
CONTRIBUTIONS:
Employer: $\$ 33,642,498$ Employee: $\$ 661,206$
BENEFITS:
Normal Retirement Formula:
More than 12 years of service: $50 \%$ of compensation Less than 12 years of service: $4.17 \%$ of compensation $x$ years of creditable service

## Normal Retirement Eligibility:

Tier 1: Age 62 with 12 years of service
Tier 1: Age 60 with 15 years of service
Tier 1: Age 55 with 20 years of service
Tier 2 (serving for the first time on/after 1/1/11): Age 67 with 12 years of service
Age 62 with 20 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Healthy projected from 2006 to 2026 Scale MP-2015
Vesting: Immediate upon employment
COLA: Annual Amount Maximum: 5\%
Percent of CPI: $80 \%$
ACTUARIAL ASSUMPTIONS:


MEMBERSHIP:
Active: 526 Inactive: 278
CONTRIBUTIONS:
Employer: \$5,048,167 Employee: \$1,287,388
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation x years of creditable service
Supplemental Benefit: $\$ 160$ per month with 15 years of service

## Normal Retirement Eligibility:

Tier 1: Later of age 65 or 10 years of service
Rule of 80
Tier 2 (Hired on/after 8/28/13): Later of age 67 or 20 years of service
Rule of 85
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2000 Healthy Scale AA
Vesting: 5
COLA: Ad hoc. Annual maximum of $3 \%$
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\%
Salary: $3.75 \%$


## KANSAS CITY EMPLOYEES' RETIREMENT SYSTEM

MEMBERSHIP:<br>Active: 3,161 Inactive: 2,463<br>CONTRIBUTIONS:<br>Employer: \$24,577,647 Employee: \$8,235,363

BENEFITS:
Normal Retirement Formula:
Hired before 4/20/14: General employees: $2 \%$ of compensation x years of creditable service If Single 2.22\% - Married May Elect 2.22\% \& Forfeit Survivor Benefits; Maximum: 70\% of compensation.
Judges/Elected Officials: $2.22 \%$ of compensation received by then serving judges/officials in same office 24 months preceding annuity $x$ YOS Hired on or after 4-20-14 1.75\% x years of service. Maximum 70\%

Normal Retirement Eligibility:
Hired before 4/20/14: Age 65 with 5 years of service
Age 60 with 10 years of service
Age 55 with 25 years of service. Rule of 80.
Judges/Elected Officials: Later of age 60 or expiration of term with 1 elective term
Hired on/after 4/20/14: Age 67 with 10 years of service, age 62 with 10 years of service, Rule of 85
Social Security Coverage: Yes
Valuation of Assets: 4 years smoothing
Mortality Table: RP-2000 generational with modified Scale MP-2015
Vesting: 5
COLA: Annual Amount Maximum: 3\% (hired before 4/20/14), 2.5\% (hired after 4/20/14)
ACTUARIAL ASSUMPTIONS:


## KANSAS CITY FIREFIGHTERS' PENSION SYSTEM

## MEMBERSHIP:

Active: 922 Inactive: 929
CONTRIBUTIONS:
Employer: \$16,631,844 Employee: \$6,769,093
BENEFITS:
Normal Retirement Formula:
2.5\% of compensation x years of creditable service

Maximum: $80 \%$ of compensation
Normal Retirement Eligibility:
Tier 1 (Hired before 4/20/14): 25 years of creditable service Tier II (effective 4/20/14): 27 yrs of creditable service.

Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 Combined
Vesting: 10
COLA: Annual Amount Maximum: 3\% (hired before 4/20/14)
Annual Amount Maximum: 2.5\% (hired on/after 4/20/14)
ACTUARIAL ASSUMPTIONS:
Interest: 7.50\% Salary: 3\%


BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation $x$ years of creditable service. Maximum: $75 \%$ of compensation. Supplemental benefit of $\$ 420$ per month. Retiring on/after 8/28/13: 2.5\% of compensation x years of service. Benefit frozen at 32 years of service. Maximum: $80 \%$ of compensation. Supplemental Benefit $\$ 200$ per month

Normal Retirement Eligibility:
Age 60 with 10 years of service 25 years of service
Hired on/after 8/28/13: Age 60 with 15 years of service
27 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2000 Scale AA
Vesting: 15
COLA: Ad hoc. Annual Amount Maximum: $3 \%$

ACTUARIAL ASSUMPTIONS:
Interest: $7.5 \% \quad$ Salary: $3.75 \%$


# MEMBERSHIP: <br> Active: 3,701 Inactive: 6,820 <br> CONTRIBUTIONS: <br> Employer: \$16,280,327 Employee: \$16,528,188 <br> BENEFITS: <br> Normal Retirement Formula: <br> Tier 1: $2 \%$ of compensation x years of creditable service 

Tier 2: Members hired on/after 1/1/14: 1.75\% of compensation $x$ years of credited service
Normal Retirement Eligibility:
Tier 1: Age 60 with 5 years of service
Rule of 75
Tier 2: Age 62 with 5 years of service
Tier 2: Rule of 80

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 Blue Collar Table
Vesting: 5
COLA: Ad hoc. Annual Amount Maximum: 3\%

ACTUARIAL ASSUMPTIONS:
Interest: 7.75\% Salary: 3.5\%


## KANSAS CITY AREA TRANSPORTATION AUTHORITY SALARIED EMPLOYEES PENSION PLAN

MEMBERSHIP:
Active: 109 Inactive: 62
CONTRIBUTIONS:
Employer: \$754,000 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$1.45 \%$ of compensation $x$ years of creditable service
Normal Retirement Eligibility:
Age 65 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP - 2014 with 2014 intermediate assumption Social Security scale
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 4.0\%


# KANSAS CITY TRANSPORTATION AUTHORITY UNION EMPLOYEES PENSION PLAN 

MEMBERSHIP:
Active: 525 Inactive: 270
CONTRIBUTIONS:
Employer: \$2,530,180 Employee: \$1,138,310
BENEFITS:
Normal Retirement Formula:
1.28\% of compensation x years of creditable service

Normal Retirement Eligibility:
Age 62 with 10 years of service
Age 60 with 30 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Blue Collar with MP 2014 generational projection
Vesting: 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: $7.0 \%$ Salary: $4.25 \%$


BENEFITS:
Normal Retirement Formula:
$1.25 \%$ of compensation x years of creditable service Maximum: 35 years of creditable service

## Normal Retirement Eligibility:

Age 62 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 projected generationally using scale MP 2016
Vesting: 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 4.5\%


## LADUE POLICE \& FIRE PENSION PLAN

MEMBERSHIP:
Active: 58 Inactive: 68
CONTRIBUTIONS:
Employer: \$1,610,554 Employee: \$293,921
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation for first 20 years of service $+2.5 \%$ for next 10 years of service
Maximum: 65\% of compensation for participants hired prior to January 1, 2013. Maximum: 60\% for participants hired on or after January $1,2013$.
Normal Retirement Eligibility:
Age 55 with 10 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2014 projected generationally using scale MP2016
Vesting: 10
COLA: Annual Amount Maximum: 2\%
Cap Total Maximum: 20\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 4.5\%


## LAGERS STAFF RETIREMENT PLAN

MEMBERSHIP:
Active: 27 Inactive: 10
CONTRIBUTIONS:
Employer: \$371,358 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation x years of creditable service
Normal Retirement Eligibility:
Age 60 with 5 years of service
Rule of 80
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014
Vesting: 5
COLA: Annual Amount Maximum: 4\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.25\% Salary: 3.25\%


## LITTLE RIVER DRAINAGE DISTRICT RETIREMENT PLAN

MEMBERSHIP:
Active: 11 Inactive: 5
CONTRIBUTIONS:
Employer: $\$ 24,427$ Employee: $\$ 15,539$
BENEFITS:
Normal Retirement Formula:
$1 \%$ of compensation $\times$ years of creditable service
Minimum of $\$ 100$ per Month
Normal Retirement Eligibility:
Age 65 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: IRC § 417(e) Applicable Mortality Table for 2016
Vesting: Immediate upon employment
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 5\% Salary: 3.5\%


## MEMBERSHIP:

Active: 33,781 Inactive: 27,782
CONTRIBUTIONS:
Employer: \$183,363,684 Employee: \$18,105,362
BENEFITS:
Normal Retirement Formula:
Several Optional Benefit Programs: 1\%, 1.25\%, 1.5\%, 1.75\%, 2.0\%, Non-Social Security 2.5\%
Normal Retirement Eligibility:
Age 60 with 5 years of service
Optional Rule of 80 for employer election
Uniformed: Age 55 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Healthy Annuitant
Vesting: 5
COLA: Annual Amount Maximum: 4\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.25\% Salary: 3.25\%


MAPLEWOOD POLICE \& FIRE RETIREMENT FUND

## MEMBERSHIP:

Active: $0 \quad$ Inactive: 21
CONTRIBUTIONS:
Employer: $\$ 726,768$ Employee: $\$ 104,690$
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation $x$ years of creditable service
Maximum: 60\% of compensation
Normal Retirement Eligibility:
20 years of service
Age 55 with 10 years of service
Social Security Coverage: No
Valuation of Assets: Market Value
Mortality Table: RP 2014 Blue Collar, Scale MP-2014, generational
Vesting: 20
COLA: No COLA
ACTUARIAL ASSUMPTION:
Interest: 7\%
Plan closed December 2010; all active Police \& Fire transferred to LAGERS 1/1/2011


```
                        MEMBERSHIP:
            Active: 0 Inactive: 25
                            CONTRIBUTIONS:
Employer: $250,000 Employee: Non-Contributory
                                    BENEFITS:
                            Normal Retirement Formula:
```

2.625\% of compensation for each of the first 27 years of service, plus 1\% for each additional year. Maximum: 75\% of compensation. Temporary Benefit: Supplemental Benefit: $\$ 500 /$ month from age 58 until Social Security eligibility.

Normal Retirement Eligibility:
Age 58 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP2000 Healthy Lives
Vesting: 5
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 5.0\% Salary: 0\%
Defined Benefit Plan frozen effective 3/31/2006. Defined Contribution Plan: See Corresponding Information in Defined Contribution
Section.
The IRS approved the plan's termination in a determination letter dated 6/11/2010.


## METRO NORTH FIRE PROTECTION DISTRICT RETIREMENT PLAN

MEMBERSHIP:
Active: 13 Inactive: 3
CONTRIBUTIONS:
Employer: \$308,041 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$\$ 200 \times$ years of credited service
Normal Retirement Eligibility:
Age 60 with 8 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP-2014 Healthy Employees
Vesting: 8
COLA: Annual Amount Maximum: 1\%
Cap Total Amount: 10\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 0\%
Defined Contribution Plan: See Corresponding Information in Defined Contribution Section.


## METRO ST. LOUIS SEWER DISTRICT EMPLOYEES PENSION PLAN

MEMBERSHIP:
Active: 626 Inactive: 891
CONTRIBUTIONS:
Employer: \$10,145,562 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$1.7 \%$ of compensation times years of service $+0.4 \%$ of compensation above covered earnings $\times$ years of service.
Maximum: 35 Years
Normal Retirement Eligibility:
Age 65 with 5 years of service
Rule of 75 and Rule of 80
Social Security Coverage: Yes
Valuation of Assets: 3 years smoothing
Mortality Table: RP-2014 with MP-2016 improvement scale, generational
Vesting: 5
COLA: Annual Amount Minimum: Lesser of $3 \%$ or $\$ 50$ a month
CAP-Total Maximum: Lesser of $45 \%$ or $\$ 750$
ACTUARIAL ASSUMPTIONS:
Interest: 7.00\% Salary: 4.25\%
Defined Benefit Plan Closed 1/1/11. Defined Contribution Plan. See Corresponding Information in Defined Contribution Section.


## METRO WEST FIRE PROTECTION DISTRICT RETIREMENT PLAN

```
    MEMBERSHIP:
    Active: 95 Inactive: 69
        CONTRIBUTIONS:
    Employer: $1,929,334 Employee: $259,487
            BENEFITS:
            Normal Retirement Formula:
    2.5% of compensation x years of creditable service
        3% for benefits accrued up to 12/31/06
            Maximum: }34\mathrm{ years of service
            Normal Retirement Eligibility:
            Age 55 with }10\mathrm{ years of service
            Social Security Coverage: Yes
        Valuation of Assets: 5 years smoothing
        Mortality Table: MP2016 Blue Collar Generational
            Vesting: 5
            COLA: No COLA
        ACTUARIAL ASSUMPTIONS:
        Interest: 7% Salary: 3%
```



## MID-COUNTY FIRE PROTECTION DISTRICT RETIREMENT PLAN

MEMBERSHIP:
Active: 19 Inactive: 5
CONTRIBUTIONS:
Employer: \$95,000 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$\$ 55 x$ years of credited service
Maximum: 20 Years of Credited Service
Normal Retirement Eligibility:
Age 55 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP 2014 Healthy Annuitant Male Table
Vesting: Partial 5 / Full 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 6\% Salary: 4.5\%
Defined Contribution Plan. See Corresponding Information in Defined Contribution Section.



MEMBERSHIP:
Active: 49,464 Inactive: 64,340
CONTRIBUTIONS:
Employer: $\$ 329,957,369$ Employee: $\$ 21,684,920$
BENEFITS:
Normal Retirement Formula:
$1.7 \%$ of compensation $x$ years of creditable service
Plus 0.8\% Temporary Benefit to Age 62 under Rule of 80 (Year 2000 Plan) or Rule of 90 (Tier 2011 Plan); Msep $1.6 \%$ of Comp x years of service
Normal Retirement Eligibility:
Age 62 with 5 years of service
Rule of 80 at age 48
Hired for the first time on/after 1/1/11: Age 67 with 10 years of service*
Rule of 90 at minimum age of 55 years
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Scale MP-2015
Vesting: 5,10 if Hired on/after $1 / 1 / 11^{*}$
COLA: Annual Amount Maximum: 5\% Percent of CPI: 80\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.65\% Salary: 3.0\%
*SB 62 (2017) changed the vesting requirement from 10 years to 5 years for members hired for the first time on/after 1/1/11 effective 1/1/18.

MEMBERSHIP:
Active: 7,473 Inactive: 11,056
CONTRIBUTIONS:
Employer: \$199,609,396 Employee: \$2,503,824

BENEFITS:
Normal Retirement Formula:
1.7\% of compensation $x$ years of creditable service

Plus 0.8\% Temporary Benefit to Age 62 under Rule of 80 (Year 2000 Plan) or Rule of 90 (Tier 2011 Plan) Closed Plan multiplier is $1.6 \%$. Uniformed Patrol (Closed Plan) receive an additional $1 / 3$ monthly base benefit

## Normal Retirement Eligibility:

Age 62 with 5 years of service, Rule of 80
Uniformed Patrol: Mandatory retirement age of 60
Hired for the first time on/after 1/1/11: Age 67 and 10 years of service*, Rule of 90 at minimum age of 55 years Uniformed Patrol: Mandatory retirement age of 60 .

Social Security Coverage: Yes
Valuation of Assets: 3 years smoothing Mortality Table: RP-2000 Combined Mortality Tables
Vesting: 5,10 if hired on/after $1 / 1 / 11^{*}$
COLA: Annual Amount Maximum: 5\% Percent of CPI: 80\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.75\% Salary: 3.5\%
*SB 62 (2017) changed the vesting requirement from 10 years to 5 years for members hired for the first time on/after 1/1/11 effective 1/1/18.


## NORTH KANSAS CITY HOSPITAL RETIREMENT PLAN

MEMBERSHIP:
Active: 2,648 Inactive: 1,484
CONTRIBUTIONS:
Employer: \$12,000,000 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
Hired after $1 / 1 / 05,0.9 \%$ of compensation not in excess of the integration level \& $1.4 \%$ above it; hired prior to $1 / 1 / 05,1.35 \%$ \& $2 \%$ respectively.

Normal Retirement Eligibility:
Age 65 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP-2000 Employee and Healthy Annuitant Table Scale BB
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.25\% Salary: 2.5\%

MEMBERSHIP:
Active: 87 Inactive: 86
CONTRIBUTIONS:
Employer: \$1,047,105 Employee: \$162,914
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation for first 20 years of service $+1 \%$ for next 10 years of service
Maximum: 30 years of service
Normal Retirement Eligibility:
Age 55 with 10 years of service
Mandatory at age 65
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: MP 2015 Generational Blue Collar Employee
Vesting: 10
COLA: Annual Amount Minimum: 1\%
Annual Amount Maximum: 3\%
ACTUARIAL ASSUMPTIONS:
Interest: 6.5\% Salary: 4\%


## OLIVETTE SALARIED EMPLOYEES' RETIREMENT PLAN

MEMBERSHIP:<br>Active: 50 Inactive: 83<br>CONTRIBUTIONS:

Employer: \$712,000 Employee: \$171,955
BENEFITS:
Normal Retirement Formula:
$2.0 \%$ of compensation $x$ years of creditable service

Normal Retirement Eligibility:
Age 58 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP-2014 Healthy Employee
Vesting: 5
COLA: Annual Amount Maximum: 2\%
Ad Hoc: CAP-Total Maximum: 25\%, Retirements after 1/1/10 receive no COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.25\%
Salary: 4\%


## OVERLAND NON-UNIFORMED EMPLOYEES' PENSION FUND

## MEMBERSHIP:

Active: 55 Inactive: 60
CONTRIBUTIONS:
Employer: \$598,488 Employee: $\$ 128,479$
BENEFITS:
Normal Retirement Formula:
$2.25 \%$ of compensation x years of creditable service
Maximum: 60\% of compensation
Normal Retirement Eligibility:
Age 58 with 5 years of service 25 years of service

Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 projected using Scale AA
Vesting: Partial 5 / Full 15
COLA: Annual Amount Maximum: 3\%
Percent of CPI: 60\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.5\%


## OVERLAND POLICE RETIREMENT FUND

# MEMBERSHIP: <br> Active: 47 Inactive: 40 <br> CONTRIBUTIONS: 

Employer: \$242,311 Employee: \$132,294
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation for first 20 years of service $+1.5 \%$ for next 10 years of service
Normal Retirement Eligibility:
20 years of service
Age 62 with 18 years of service
Age 65 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 projected generationally using Scale AA
Vesting: Partial 15 / Full 20
COLA: Annual Amount Maximum: 3\%
Percent of CPI: 60\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.5\%


## PATTONVILLE-BRIDGETON FIRE PROTECTION DISTRICT RETIREMENT PLAN

## MEMBERSHIP:

Active: 64 Inactive: 37
CONTRIBUTIONS:
Employer: \$950,000 Employee: \$127,595
BENEFITS:
Normal Retirement Formula:
50\% of compensation
$50 \%$ of average monthly compensation reduced for service less than 20 years (if hired before $11 / 26 / 07$ ) or reduced for service less than 25 years (if hired after 11-26-07)
Supplemental benefit from age 55 to 62 : $20 \%$ of compensation
Normal Retirement Eligibility:
Uniformed: Age 57 with 5 years of service. Age 55 for those hired before $1 / 1 / 13$ and born before 1/1/1963
Non-Uniformed: Age 62 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2000 combined healthy generational, Scale AA
Vesting: Partial 5 / Full 10
COLA: Annual Amount Minimum: 1\%
Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: $7.75 \%$ Salary: 2.5\%


MEMBERSHIP:
Active: $80 \quad$ Inactive: 70
CONTRIBUTIONS:
Employer: $\$ 301,740$ Employee: $\$ 189,797$
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation for first 20 years of service $+1.5 \%$ for each additional year of service
Maximum: $\$ 1,650$ per month
Normal Retirement Eligibility:
Later of age 55 or 5 years of service
Social Security Coverage: No
Valuation of Assets: 4 years smoothing
Mortality Table: IRS Prescribed Mortality-Generational Annuitant
Vesting: Partial 5 / Full 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 5\% Salary: 3\%


## PROSECUTING ATTORNEYS' \& CIRCUIT ATTORNEYS' RETIREMENT SYSTEM

MEMBERSHIP:
Active: 115 Inactive: 103
CONTRIBUTIONS:
Employer: \$1,855,417 Employee: \$0
BENEFITS:
Normal Retirement Formula:
1st \& 2nd Class Counties \& St. Louis City: 50\% of Final Average Salary 3rd \& 4th Class Counties: $12-20$ YOS $=\$ 105 \mathrm{x}$ each 2 year period $20+$ YOS $=\$ 130 \times$ each 2 year period

Normal Retirement Eligibility:
Age 62 with 12 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP 2000 projected generational Scale AA
Vesting: 12
COLA: Annual Amount Maximum: 2\%
Cap Total: 50\%
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3.5\%


# PUBLIC EDUCATION EMPLOYEES' RETIREMENT SYSTEM 

MEMBERSHIP:
Active: 47,851 Inactive: 59,160
CONTRIBUTIONS:
Employer: \$106,717,021 Employee: \$114,257,497

BENEFITS:
Normal Retirement Formula:
1.61\% of compensation x years of creditable service Rule of $80 / 30$ \& Out: $0.8 \%$ of compensation $x$ years of service to Social Security eligibility

Normal Retirement Eligibility:
Age 60 with 5 years of service
Rule of 80
Age 55 with 25 years of service
30 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table (Retiree Mortality): RP-2006 Total Dataset Mortality Tables with plan specific experience adjustments with static projection to 2028 using 2014 SSA Improvement Scale

Vesting: 5
COLA: Annual Amount Maximum: 5\% Cap Total Max: 80\%

ACTUARIAL ASSUMPTIONS:
Interest: $7.75 \%$ Salary: 3.25\%


## PUBLIC SCHOOL RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 78,129 Inactive: 74,396
CONTRIBUTIONS:
Employer: \$670,794,045 Employee: \$704,785,734
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation $x$ years of creditable service

Normal Retirement Eligibility:
Age 60 with 5 years of service
Rule of 80
30 years of service
Age 55 with 25 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table (Retiree Mortality): RP-2006 White Collar Mortality Tables, with plan specific experience adjustments and static projection to 2028 using 2014 SSA Improvement Scale

## Vesting: 5

COLA: Annual Amount Maximum: 5\% Cap Total Max: 80\%

ACTUARIAL ASSUMPTIONS:
Interest: 7.75\% Salary: 2.75\%


## RAYTOWN POLICEMEN'S RETIREMENT FUND

## MEMBERSHIP:

Active: 42 Inactive: 45
CONTRIBUTIONS:
Employer: \$562,862 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2.5 \%$ of compensation for first 20 years of service + 1\% for next 10 years of service

Normal Retirement Eligibility:
Age 55 with 20 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2015 Blue Collar with generational projections
Vesting: 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\% Salary: 4\%
Plan frozen effective 12/31/2013; moved current \& new employees to LAGERS


# MEMBERSHIP: <br> Active: 62 Inactive: 41 <br> CONTRIBUTIONS: <br> Employer: \$978,275 Employee: \$127,625 <br> BENEFITS: <br> Normal Retirement Formula: <br> 70\% of compensation <br> Normal Retirement Eligibility: <br> Age 60 or 30 years of service <br> Social Security Coverage: Yes <br> Valuation of Assets: 4 years smoothing 

Mortality Table: RP 2014 Blue Collar Healthy projected to 2017, MP-2014 Improvement Scale
Vesting: 15
COLA: Ad Hoc: CAP-Total Maximum: Based on increase in base pay of actives until retiree reaches full Social Security age
ACTUARIAL ASSUMPTIONS:
Interest: 6.5\% Salary: 5\%
Plan performs actuarial valuation biennially


```
    MEMBERSHIP:
    Active: 63 Inactive: }2
    CONTRIBUTIONS:
    Employer: $699,000 Employee: Non-Contributory
                    BENEFITS:
            Normal Retirement Formula:
        2% of compensation x years of creditable service
        Temporary Benefit: $500 per month to Medicare eligibility
    Normal Retirement Eligibility:
    Age 60 with 5 years of service
    Age 55 with 30 years of service
            Social Security Coverage: Yes
        Valuation of Assets: 5 years smoothing
```

    Mortality Table: Blue Collar RP 2014 generational SSA from 2006
        Vesting: 7
            COLA: No COLA
            ACTUARIAL ASSUMPTIONS:
            Interest: 7.5\% Salary: 3\%
    

## ROCK HILL POLICE \& FIREMEN'S PENSION PLAN

MEMBERSHIP:
Active: 7 Inactive: 21
CONTRIBUTIONS:
Employer: \$150,000
Employee: \$0
BENEFITS:
Normal Retirement Formula:
$40 \%$ or $50 \%$ of compensation, reduced by $1 / 20$ per final years of service below 20 years, full $40 \%$ or $50 \%$ if greater than 20 years of service.
Percentage based on age and years of service as of 4/30/2003.

## Normal Retirement Eligibility:

Age 60 with 20 years of service
Mandatory retirement age of 70
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: IRS Combined Static Mortality Table
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTION:
Interest: 6.4\%
Plan closed effective October 2003. Plan frozen effective May 1, 2011.


## SALINE VALLEY FIRE PROTECTION DISTRICT RETIREMENT PLAN

MEMBERSHIP:<br>Active: 30 Inactive: 15<br>CONTRIBUTIONS:<br>Employer: \$184,278<br>Employee: \$0<br>BENEFITS:<br>Normal Retirement Formula:<br>$\$ 100$ per month $x$ years of service Maximum of 30 years<br>Normal Retirement Eligibility:<br>Age 60 with 7 years of service<br>Social Security Coverage: Yes

Valuation of Assets: Market Value
Mortality Table: RP 2014 Blue Collar Social Security Generational Improvements

```
                                    Vesting: }
                    COLA: No COLA
ACTUARIAL ASSUMPTION:
            Interest: 7%
```

Defined Contribution Plan: See Corresponding Information in Defined Contribution Section


## SEDALIA FIREMEN'S RETIREMENT FUND

## MEMBERSHIP:

Active: 35 Inactive: 48
CONTRIBUTIONS:
Employer: \$331,451 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula: $50 \%$ of Indexed Earnings Base (IEB) - IEB = \$52,891 (2015-2016)

Normal Retirement Eligibility:
Age 55 with 22 years of service
Social Security Coverage: No
Valuation of Assets: Market value
Mortality Table: RP-2015 Blue Collar
Vesting: Partial 1 / Full 10
COLA: Annual Amount Maximum: 3\% Ad Hoc

ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 3\%


## SEDALIA POLICE RETIREMENT FUND

## MEMBERSHIP:

Active: 28 Inactive: 46
CONTRIBUTIONS:
Employer: \$480,773 Employee: Non-Contributory

BENEFITS:
Normal Retirement Formula:
2\% of compensation x years of creditable service
Maximum: 30 years. Minimum benefit of \$885/month for hires prior to 08/01/1989
Normal Retirement Eligibility:
Age 52 with 15 years of service

Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: MP-2015 Blue Collar Male and Female Generational
Vesting: Partial 5 / Full 15
COLA: Annual Amount Maximum: 2\%

ACTUARIAL ASSUMPTION:
Interest: 6\%
Plan frozen as of April 2010; current \& new members moved to LAGERS


## SHERIFFS' RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 114 Inactive: 212
CONTRIBUTIONS:
Employer: $\$ 2,383,322$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation $x$ years of creditable service Plus monthly supplement not to exceed $\$ 450$. 2016 Supplement $=\$ 300$.

Normal Retirement Eligibility:
Age 55 with 12 years of service
Age 62 with 8 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 to Blue Collar fully generational Scale BB
Vesting: 8
COLA: Annual Amount Maximum: 5\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 6.5\%
Salary: $1.5 \%$ in non-election years, $9 \%$ in election years


## SPRINGFIELD POLICE \& FIRE RETIREMENT FUND

## MEMBERSHIP:

Active: 277 Inactive: 564
CONTRIBUTIONS:
Employer: \$39,043,206 Employee: \$2,945,796
BENEFITS:
Normal Retirement Formula:
2.8\% of compensation $x$ years of creditable service

Max: 70\% of compensation
Normal Retirement Eligibility:
Age 50 with 20 years of service
Mandatory retirement at age 60 with 20 years of service Age 60
25 years of service
Social Security Coverage: No
Valuation of Assets: 4 years smoothing
Mortality Table: RP 2000 Generational Scale AA
Vesting: 5
COLA: Annual Amount Maximum: 3\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: varies
Plan closed 1/31/2010; active members hired after 6/1/06 \& new hires moved to LAGERS


## ST. JOSEPH POLICEMEN'S PENSION FUND

MEMBERSHIP:
Active: 117 Inactive: 109
CONTRIBUTIONS:
Employer: \$1,688,681 Employee: \$255,516
BENEFITS:
Normal Retirement Formula:
$40 \%$ of compensation for first 20 years of service $+2 \%$ for each of the next 15 years of service
Maximum: 70\%
Minimum benefit of $\$ 500$
Normal Retirement Eligibility:
20 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2015 Blue Collar
Vesting: 20
COLA: Annual Amount Maximum: 4\%
Percent of CPI: 50\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.1\% Salary: 3\%


## ST. LOUIS COUNTY EMPLOYEES' RETIREMENT PLAN

MEMBERSHIP:
Active: 3,747 Inactive: 4,454
CONTRIBUTIONS:
Employer: \$39,938,958 Employee: Non-Contributory

BENEFITS:
Normal Retirement Formula:
General Employees: $1.5 \%$ of compensation $x$ years of creditable service plus $\$ 15 /$ month $x$ years of service Uniformed: $1.6 \% \times$ years of service $+\$ 30$ per mo $x$ years of service to age 65 then $\$ 5$ per mo $x$ yos post-age 65

Normal Retirement Eligibility:
General Employees: Age 65 with 3 years of service Uniformed: Age 60 and 10 years of service, age 65 with 3 years of service, Rule of 80

Social Security Coverage: Yes
Valuation of Assets: 4 years smoothing
Mortality Table: RP-2000 and RP 2000 Blue Collar, generational
Vesting: 5
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 7.75\%
Salary: 4.25\%


## ST. LOUIS COUNTY LIBRARY DISTRICT EMPLOYEES PENSION PLAN

MEMBERSHIP:
Active: 359 Inactive: 333
CONTRIBUTIONS:
Employer: \$2,500,000 Employee: Non-Contributory

BENEFITS:
Normal Retirement Formula:
$1.6 \%$ of compensation x years of creditable service
Normal Retirement Eligibility:
Age 65 with 5 years of service

Social Security Coverage: Yes
Valuation of Assets: 4 years smoothing
Mortality Table: RP-2014 fully generational basis using Scale MP-2015
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\%
Salary: 3.5\%


## ST. LOUIS EMPLOYEES' RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 5,303 Inactive: 7,015
CONTRIBUTIONS:
Employer: \$32,127,591 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$1.3 \%$ of compensation below $\$ 72,636$ per Year $+2.05 \%$ of compensation above $\$ 72,636 \times$ years of credited service

Normal Retirement Eligibility:
Age 65 with 5 years of service
Rule of 85
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP-2000 3 year set forward, generational projection using Scale AA
Vesting: 5
COLA: Annual Amount Maximum: 3.125\%
Cap Total Maximum: 25\%
Percent of CPI: 100\%

ACTUARIAL ASSUMPTIONS:
Interest: 7.5\% Salary: 3\%


## ST. LOUIS FIREMEN'S RETIREMENT SYSTEM

MEMBERSHIP:
Active: 478 Inactive: 1,006
CONTRIBUTIONS:
Employer: \$2,715,140 Employee: Non-Contributory

BENEFITS:
Normal Retirement Formula:
$40 \%$ of compensation for the first 20 years of service $+2 \%$ for each of the next 5 years of service $+5 \%$ for each year over 25 years. Maximum 30 years.

Normal Retirement Eligibility:
20 years of service

Social Security Coverage: No
Valuation of Assets: 3 years smoothing
Mortality Table: RP 2014 for Healthy Annuitants, sex distinct
Vesting: 20
COLA: Annual Amount Minimum: 1.5\%
Annual Amount Maximum: 5\%
Cap Total Maximum: 25\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.0\% Salary: 3.00\%
Plan frozen as of $2 / 1 / 2013$


## ST. LOUIS POLICE RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 1,122 Inactive: 2,051
CONTRIBUTIONS:
Employer: \$30,778,664 Employee: \$4,320,337
BENEFITS:
Normal Retirement Formula:
$2 \%$ of compensation for first 25 years of service $+4 \%$ for next 5 years of service
Plus 5\% for all service after 30 Yrs
Maximum: 75\% of compensation
Normal Retirement Eligibility:
Age 55 or 20 years of service
Mandatory retirement age of 65
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Blue Collar projected generationally with MP-2015
Vesting: 20
COLA: Annual Amount Maximum: 3\%
Cap Total Maximum: 30\%
Percent of CPI: 100\%
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\% Salary: 3\%


## ST. LOUIS PUBLIC SCHOOL RETIREMENT SYSTEM

## MEMBERSHIP:

Active: 5,101 Inactive: 7,115
CONTRIBUTIONS:
Employer: \$39,519,979 Employee: \$12,652,029

BENEFITS:
Normal Retirement Formula:
2\% of compensation x years of creditable service Maximum Benefit: 60\% of average final compensation

Normal Retirement Eligibility:
Age 65
Rule of 85
Social Security Coverage: Yes
Valuation of Assets: Assumed Yield Method

Mortality Table: RP 2014 Generational Scale MP 2015
Vesting: 5
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 7.5\%
Salary: $5.0 \%$ for first five years, then $3.5 \%$


## UNIVERSITY CITY NON-UNIFORMED RETIREMENT PLAN

## Active: 133 Inactive: 86 <br> CONTRIBUTIONS:

Employer: \$946,024 Employee: \$183,380
BENEFITS:
Normal Retirement Formula:
$1.6 \%$ of compensation $x$ years of creditable service
Plus $0.50 \%$ above $\$ 45,000$; Max 35 years of service
Normal Retirement Eligibility:
Age 62 with 30 years of service
Age 65 with 10 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Generational Scale MP 2016
Vesting: 10 COLA: Ad Hoc

ACTUARIAL ASSUMPTIONS:
Interest: 6.5\% Salary: 3\%


## UNIVERSITY CITY POLICE \& FIRE RETIREMENT FUND

## MEMBERSHIP:

Active: 99 Inactive: 111
CONTRIBUTIONS:
Employer: \$948,230 Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$65 \%$ of compensation for first 25 years of service $+1 \%$ for each of the next 5 years of service
Maximum: 70\% of compensation

Normal Retirement Eligibility:
Age 50 with 25 years of service
Social Security Coverage: No
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2014 Generational Scale MP 2016
Vesting: 10
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 6.5\% Salary: 3\%


# UNIVERSITY OF MISSOURI RETIREMENT, DISABILITY \& DEATH BENEFIT PLAN 

MEMBERSHIP:
Active: 18,233 Inactive: 13,492

CONTRIBUTIONS:
Employer: \$98,004,532 Employee: \$14,968,976
BENEFITS:
Normal Retirement Formula:
2.2\% of compensation x years of creditable service

Employees hired for the first time on/after 10/01/12: 1.0\% $x$ years of creditable service.
Normal Retirement Eligibility:
Age 65 with 5 years of service
Age 62 with 25 years of service
Social Security Coverage: Yes
Valuation of Assets: 5 years smoothing
Mortality Table: RP 2000 Combined Healthy projected to 2023 Scale BB
Vesting: 5
COLA: Ad Hoc
ACTUARIAL ASSUMPTIONS:
Interest: 7.75\% Salary: 2.75\%
Hybrid/Defined Contribution Component for Employees Hired for the first time on/after 10/1/12


## VALLEY PARK FIRE PROTECTION DISTRICT RETIREMENT PLAN

## MEMBERSHIP:

Active: 24 Inactive: 12
CONTRIBUTIONS:
Employer: $\$ 230,000$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
2.00\% of compensation x years of creditable service

Maximum: 30 years of service
Normal Retirement Eligibility:
Age 55 with 5 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP 2000
Vesting: 5
COLA: No COLA
ACTUARIAL ASSUMPTIONS:
Interest: 7\% Salary: 4\%


# WARRENTON FIRE PROTECTION DISTRICT LENGTH OF SERVICE AWARDS PROGRAM 

## MEMBERSHIP:

Active: 10 Inactive: 29
CONTRIBUTIONS:
Employer: $\$ 30,814$ Employee: Non-Contributory
BENEFITS:
Normal Retirement Formula:
$\$ 10$ per month x years of service; \$200 per month Max; Life Annuity Guaranteed for 10 Years.

Normal Retirement Eligibility:
Age 65 with 1 years of service
Social Security Coverage: Yes
Valuation of Assets: Market Value
Mortality Table: RP 2000
Vesting: 4
COLA: No COLA
ACTUARIAL ASSUMPTION:
Interest: 4.75\%


## Defined Contribution Plans

It should be noted that data included in these appendices reflect PERS information from plan year 2016.

For purposes of this report, the membership numbers noted for each plan refer to actives only.

BATES COUNTY MEMORIAL HOSPITAL EMPLOYEES' PROFIT SHARING PLAN


BOTHWELL HOSPITAL DEFINED CONTRIBUTION RETIREMENT PLAN



CEDAR HILL FIRE PROTECTION DISTRICT MONEY PURCHASE PLAN



## CENTRAL COUNTY FIRE \& RESCUE PENSION PLAN



CERF ADMINISTRATIVE OFFICE 401(A) PLAN


## CHESTERFIELD RETIREMENT PLAN



COLLEGE \& UNIVERSITY RETIREMENT PLAN


CONSOLIDATED WATER DISTRICT \#C-1 OF JEFFERSON COUNTY


COOPER COUNTY MEMORIAL HOSPITAL RETIREMENT PLAN


COTTLEVILLE FIRE PROTECTION DISTRICT RETIREMENT PLAN



COUNTY EMPLOYEES' RETIREMENT FUND
FUND TOTAL Membership = 7770



CREVE COEUR EMPLOYEES RETIREMENT PLAN


CREVE COEUR FIRE PROTECTION DISTRICT RETIREMENT PLAN
FUND TOTAL
Membership $=57$



## DES PERES RETIREMENT PLAN



## FLORISSANT EMPLOYEES PENSION PLAN




FRANKLIN COUNTY SB40 RESOURCE BOARD



HIGH RIDGE FIRE PROTECTION DISTRICT PENSION PLAN


KANSAS CITY SUPPLEMENTAL RETIREMENT PLAN


## KIRKWOOD POLICE \& FIRE PENSION PLAN




LAKE OZARK FIRE PROTECTION DISTRICT PENSION PLAN


LAKE ST. LOUIS FIRE PROTECTION DISTRICT RETIREMENT PLAN


LAKE WEST AMBULANCE DISTRICT RETIREMENT PLAN


## LEMAY FIRE PROTECTION DISTRICT RETIREMENT PLAN



LIBERTY HOSPITAL RETIREMENT INCOME PLAN


## LINCOLN COUNTY MEMORIAL HOSPITAL RETIREMENT PLAN



MARYLAND HEIGHTS FIRE PROTECTION DISTRICT PENSION PLAN



MARYLAND HEIGHTS PENSION PLAN



MEHLVILLE FIRE PROTECTION DISTRICT RETIREMENT PLAN


METRO NORTH FIRE PROTECTION DISTRICT RETIREMENT PLAN


## METRO ST. LOUIS SEWER DISTRICT RETIREMENT PLAN



MID-COUNTY FIRE PROTECTION DISTRICT RETIREMENT PLAN



MISSOURI HIGHER EDUCATION LOAN AUTHORITY PENSION PLAN


MONARCH FIRE PROTECTION DISTRICT


NORTH JEFFERSON COUNTY AMBULANCE DISTRICT RETIREMENT PLAN


NORTHEAST AMBULANCE \& FIRE PROTECTION DISTRICT RETIREMENT PLAN


O'FALLON FIRE PROTECTION DISTRICT RETIREMENT PLAN


PACIFIC FIRE PROTECTION DISTRICT RETIREMENT PLAN


PHELPS COUNTY REGIONAL MEDICAL CENTER PENSION PLAN


PIKE COUNTY MEMORIAL HOSPITAL RETIREMENT PLAN



PUBLIC WATER SUPPLY DISTRICT \#2 OF JACKSON COUNTY


PUBLIC WATER SUPPLY DISTRICT \#3 OF JEFFERSON COUNTY


RIVERVIEW FIRE PROTECTION DISTRICT RETIREMENT PLAN


ROBERTSON FIRE PROTECTION DISTRICT RETIREMENT PLAN



SALINE VALLEY FIRE PROTECTION DISTRICT RETIREMENT PLAN


Defined Benefit Plan.
See corresponding plan page in defined benefit section.

## CONTRIBUTIONS

Contributions have not been made to this plan since 2009.

On 1/28/16, the Board of Directors voted to terminate the Plan.

SAMARITAN MEMORIAL HOSPITAL PENSION PLAN



SPANISH LAKE FIRE PROTECTION DISTRICT RETIREMENT PLAN



UNIVERSITY OF MISSOURI RETIREMENT, DISABILITY \& DEATH BENEFIT PLAN



## WENTZVILLE FIRE PROTECTION DISTRICT PENSION PLAN



WEST COUNTY EMS \& FIRE PROTECTION RETIREMENT PLAN


WEST OVERLAND FIRE PROTECTION DISTRICT RETIREMENT PLAN



NOTES


[^0]:    7 Jean-Pierre Aubry and Caroline V. Crawford, Issue Brief, "State and Local Pension Reform Since the Financial Crisis," Center for State \& Local Government Excellence, December 2016, http://slge.org/wp-content/uploads/2016/12/State-and-Local-Pension-Reform-Since-the-Financial-Crisis.pdf

    8 Keith Brainard and Alex Brown, "Spotlight on Significant Reforms to State Retirement Systems," National Association of State Retirement Administrators, June 2016, https://www.nasra.org//Files/Spotlight/Significant\%20Reforms.pdf

